United States Army, Alaska
Pamphlet 200-1

Hazardous Materials and Regulated Waste Management
May 2000

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Prepared for:
Department of the Army Headquarters,
United States Army, Alaska
Fort Richardson, Alaska 99505-5000

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ACRONYMS AND ABBREVIATIONS

%	percent
ADEC	Alaska Department of Environmental Conservation
AR	Army Regulation
Army	United States Department of the Army
AST	aboveground storage tank
CFR	Code of Federal Regulations
CSDP	Command Supply Discipline Program
DoD	Department of Defense
DOL	Department of Logistics
DOT	United States Department of Transportation
DRMO	Defense Reutilization and Marketing Office
EAA	emergency accumulation area
EOD	explosive ordnance disposal
EPA	Environmental Protection Agency
FI/FO	first in/first out
GSA	General Services Administration
HAZCOM	hazardous communication
HAZWOPER	Hazardous Waste Site Worker Training (29 CFR 1910.120)
HMSA	hazardous materials storage area
HWAA	hazardous waste accumulation area
HWCSU	hazardous waste container storage unit
IC	Institutional Controls
MSDS	material safety data sheet
NEV	Notice of Environmental Violation
NHWSA	non-hazardous waste storage area
NOV	Notice of Violation
NRC	National Response Center
ODS	ozone-depleting substance
OSHA	United States Office of Occupational Safety and Health Administration
PCB	polychlorinated biphenyl
POC	point of contact
POL	petroleum, oil, and lubricant
PPE	personal protective equipment
PWE	Directorate of Public Works, Environment Resources Office
RCRA	Resource Conservation and Recovery Act
ROD	Record of Decision
RRAA	recycle, reuse, reclaim accumulation area
SAA	satellite accumulation area
SOP	standard operating procedure
TSDF	treatment, storage, and disposal facility

UCMJ	Uniform Military Code of Justice
USARAK	United States Army, Alaska
UST	underground storage tank
UWSA	universal waste storage area

KEY ENVIRONMENTAL CONTACTS

FORT RICHARDSON

AREA	CONTACT	TELEPHONE/E-MAIL
Alaska Department of Environmental Conservation (ADEC); Spill Reporting	(Contacted by PWE only)	800-478-9300
Alternative Solvents	Richard Nenahlo	384-3295 mailto:richard.nenahlo@richardson.army.mil
Antifreeze Recycling Equipment	Richard Nenahlo	384-3295 mailto:richard.nenahlo@richardson.army.mil
Asbestos	Mark Prieksat	384-3042 mailto:mark.prieksat@richardson.army.mil
Civilian Personnel Office	Dana Kolarik	384-1374 mailto:kolarik@richardson.army.mil
Comments/Suggestions on Pamphlet 200-1	Cristal Fosbrook	384-3044 mailto:cristal.fosbrook@richardson.army.mil
Defense Reutilization and Marketing Office (DRMO)	Bob Morris	552-3745 mailto:szva004@szva01.drms.dla.mil
Directorate of Public Works, Environment Resources Office (PWE)	Denise Bruneau	384-3044 mailto:denise.bruneau@richardson.army.mil
Environmental Awards	Cristal Fosbrook	384-3044 mailto:cristal.fosbrook@richardson.army.mil
Explosive Ordnance Disposal	David Green	384-7603 mailto:david.green@richardson.army.mil
Fire (emergency)	—	911
Fire Department (non-emergency)	Chief Fred Swen	384-0774 mailto:SwenFW@richardson-emh2.army.mil
Hazardous Waste	Richard Nenahlo	384-3295 mailto:richard.nenahlo@richardson.army.mil
Joint Regional Environmental Training Center	David Johnson	428-2242 mailto:david.johnson@richardson.army.mil
Landfill (Anchorage Regional Landfill)	Mike Blair	343-6283
Material Safety Data Sheets (MSDS)	Web Maywald	348-2382 mailto:web.maywald@richardson.army.mil
Medical Supply Officer	Juan Rios	384-7683 mailto:juan.rios@richardson.army.mil
National Response Center (NRC)	(Contacted by PWE only)	800-424-8802
Preventative Medicine	Muriel Galsim	384-1401
Product Substitution (less-hazardous products)	Richard Nenahlo	384-3295 mailto:richard.nenahlo@richardson.army.mil
PWE Waste Turn-in Contractor	Pamela Rosinski	428-2000 mailto:cysfra@gci.net
Radioactive Waste	Web Maywald Karl Almasy	Contact Post Safety Office 348-2382 mailto:web.maywald@richardson.army.mil 384-2801
Range Control	Lindsay Fleshman	384-6233 (or 384-6230) mailto:fleshmanl@richardson-emh4.army.mil
Recycling	Joseph Mets	384-3268 mailto:joseph.mets@richardson.army.mil
Safety Office	Wailand Rivenbark	384-2041 mailto:wailand.rivenbark@richardson.army.mil
Unused Product Returns (Department	Marlene Runkle	384-7010

AREA	CONTACT	TELEPHONE/E-MAIL
of Logistics Supply)		mailto:marlene.runkle@richardson.army.mil

FORT RICHARDSON (continued)

AREA	CONTACT	TELEPHONE/E-MAIL
Wetlands	Gary Larsen	384-3074 mailto:gary.larsen@richardson.army.mil
Wildlife Military Police (MP)	Stephen Breuax	384-0823 @richardson.army.mil
Fill in your own key contacts here		

Note: Area Code 907

FORT WAINWRIGHT

AREA	CONTACT	TELEPHONE/E-MAIL
Alaska Department of Environmental Conservation (ADEC); Spill Reporting	(Contacted by PWE only)	800-478-9300
Alternative Solvents	Robert Gray	353-9949 mailto:grayr@wainwright-emh5.army.mil
Antifreeze Recycling Equipment	Robert Gray	353-9949 mailto:grayr@wainwright-emh5.army.mil
Asbestos	Wayne Tolliver	353-7724 mailto:tolliverw@wainwright.army.mil
Civilian Personnel Office	Demetrie Hinton	353-7208 mailto:hintond@wainwright-emh5.army.mil
Comments/Suggestions on Pamphlet 200-1	Robert Gray	353-9949 mailto:grayr@wainwright-emh5.army.mil
Defense Reutilization and Marketing Office (DRMO)	LeRoy Bohnet	353-1144 mailto:lbohnet@fairbanksnt-ex.drms.dla.mil
Directorate of Public Works, Environment Resources Office (PWE)	Charles Ruerup	353-6249 mailto:ruerupc@wainwright.army.mil
Environmental Awards	Douglas Johnson	384-3093 mailto:douglas.johnson@richardson.army.mil
Explosive Ordnance Disposal	David Green	384-7603 mailto:david.green@richardson.army.mil
Fire (emergency)	—	911
Fire Department (non-emergency)	Ben Feagle	353-7470
Hazardous Waste	Robert Gray	353-9949 mailto:grayr@wainwright-emh5.army.mil
Joint Regional Environmental Training Center	David Johnson	428-2242 mailto:david.johnson@richardson.army.mil
Landfill (on post)	Paul DeHaven	353-7192
Material Safety Data Sheets (MSDS)	Eric Ansow	353-7412 mailto:safety@wainwright.army.mil
Medical Supply Officer	Greg Osland	353-7321
National Response Center (NRC)	(Contacted by PWE only)	800-424-8802
Preventative Medicine	Larry Edwards	353-5218 mailto:larry.edwards@nw.amedd.army.mil
Product Substitution (less-hazardous products)	Robert Gray	353-9949 mailto:grayr@wainwright-emh5.army.mil
PWE Waste Turn-in Contractor	Jodi Smith	356-2023 mailto:cysfwa@gci.net
Radioactive Waste	Eric Ansow	Contact Post Safety Office 353-7412 mailto:safety@wainwright.army.mil
Range Control	Gordon McCulley	353-1266 SMTP:mailto:dptsmrc@wainwright.army.mil
Recycling	Robert Gray	353-9949 mailto:grayr@wainwright-emh5.army.mil
Safety Office	Eric Ansow	353-7412 mailto:safety@wainwright.army.mil
Unused Product Returns (Department of Logistics Supply)	Sandra Foreman	353-6177

FORT WAINWRIGHT (continued)

AREA	CONTACT	TELEPHONE/E-MAIL
Wetlands	Deb Lipyanic	353-6702 mailto:lipyanid@wainwright-emh5.army.mil
Wildlife Military Police (MP)	Tony Burnside	353-7595
Fill in your own key contacts here		

Note: Area Code 907

FORT GREELY

AREA	CONTACT	TELEPHONE/E-MAIL
Alaska Department of Environmental Conservation (ADEC); Spill Reporting	(Contacted by PWE only)	800-478-9300
Alternative Solvents	Robert Gray	353-9949 mailto:grayr@wainwright-emh5.army.mil
Antifreeze Recycling Equipment	Robert Gray	353-9949 mailto:grayr@wainwright-emh5.army.mil
Asbestos	Wayne Tolliver	353-7724 mailto:tolliverw@wainwright.army.mil
Civilian Personnel Office	Kathy Midgley	873-1167 mailto:midgleyk@wainwright.army.mil
Comments/Suggestions on Pamphlet 200-1	Robert Gray	353-9949 mailto:grayr@wainwright-emh5.army.mil
Defense Reutilization and Marketing Office (DRMO)	LeRoy Bohnet	353-1144 mailto:lbohnet@fairbanksnt-ex.drms.dla.mil
Directorate of Public Works, Environment Resources Office (PWE)	Charles Moore (4/2000)	873-4665
Environmental Awards	Douglas Johnson	384-3093 mailto:douglas.johnson@richardson.army.mil
Explosive Ordnance Disposal	David Green	384-7603 mailto:david.green@richardson.army.mil
Fire (emergency)	—	911
Fire Department (non-emergency)	Tommy Oldham	873-4625 mailto:OldhamTC@wainwright.army.mil
Hazardous Waste	Robert Gray	353-9949 mailto:grayr@wainwright-emh5.army.mil
Joint Regional Environmental Training Center	David Johnson	428-2242 mailto:david.johnson@richardson.army.mil
Landfill (on post)	Ron Roden	873-4669
Material Safety Data Sheets (MSDS)	Robert Jett	873-1129 mailto:robert.jett@wainwright.army.mil
Medical Supply Officer	Katia Jones	873-4705
National Response Center (NRC)	(Contacted by PWE only)	800-424-8802
Preventative Medicine	Janet Mecklenburg	873-1116 mailto:janet.mecklenberg@nw.amedd.army.mil
Product Substitution (less-hazardous products)	Robert Gray	353-9949 mailto:grayr@wainwright-emh5.army.mil
PWE Waste Turn-In Contractor	Leo Palmer	869-3555 mailto:cys@knix.net
Radioactive Waste	Robert Jett	Contact Post Safety Office 873-1129 mailto:robert.jett@wainwright.army.mil

FORT GREELY (continued)

AREA	CONTACT	TELEPHONE/E-MAIL
Range Control	Craig Sharp	873-4714 mailto:sharpcm@wainwright.army.mil
Recycling	Robert Gray	353-9949 mailto:grayr@wainwright-emh5.army.mil
Safety Office	Robert Jett	873-1129 mailto:robert.jett@wainwright.army.mil
Unused Product Returns (Department of Logistics Supply)	Bill Collins	873-1274
Wetlands	Ellen Clark	873-1614 mailto:clarkem@wainwright.army.mil
Wildlife Military Police (MP)	Ronald Scanland	873-3108
Fill in your own key contacts here		

Note: Area Code 907

1.0 INTRODUCTION

United States Army, Alaska (USARAK), Pamphlet 200-1 governs all aspects of managing hazardous materials/regulated waste by both military and civilian personnel, at all USARAK facilities.

1.1 PURPOSE

This pamphlet establishes the policies, responsibilities, and procedures for complying with hazardous materials/regulated waste management regulations, decision documents, and Records of Decision (RODs) established by the Department of Defense (DoD), Department of the Army (Army), USARAK, United States Environmental Protection Agency (EPA), United States Department of Transportation (DOT), United States Occupational Safety and Health Administration (OSHA), Alaska Department of Environmental Conservation (ADEC), and Alaska Department of Labor.

1.2 AUTHORITY

Authority for this pamphlet is granted and required under Army Regulation (AR) 200-1.

1.3 HAZARDOUS MATERIALS/REGULATED WASTE MANAGEMENT POLICY

USARAK is firmly committed to a policy of environmental stewardship for all lands under USARAK control. Our policy is based on four pillars:

- **Prevention of pollution** and the minimization of damage to the environment
- **Conservation** of natural resources
- **Compliance** with all applicable environmental laws and regulations
- **Restoration** of lands damaged by past military activities

All USARAK civilian and military personnel have important roles in ensuring that these policy goals are achieved. To fulfill these commitments and responsibilities, the following guiding principles have been established:

- USARAK will develop, implement, and maintain an effective environmental management system (Pamphlet 200-1) that reflects Army environmental policy, is consistent with the ISO 14001 international environmental management system standard, and fully integrates environmental considerations into the daily operations of each post in order to protect the environment, our personnel, and the public interest.

- USARAK will maintain and periodically verify compliance with all applicable federal, state, and local environmental laws and regulatory agreements (including decision documents and RODs) and applicable Army regulations.

- USARAK will develop and implement effective methods to prevent pollution, conserve resources, reduce waste, and otherwise continually improve our environmental management practices.

- USARAK will openly communicate this policy and our environmental management practices to civilian and military personnel, contractors, tenants, and other interested parties.

- USARAK will implement training programs to ensure that civilian and military personnel and our contractors and tenants acquire and maintain the knowledge and skills required to fulfill their environmental responsibilities.

- USARAK will establish, periodically review, and provide funding for appropriately prioritized objectives and targets for environmental performance that minimize USARAK's environmental risks and otherwise fulfill the commitments of this policy.

- This environmental policy will periodically be reviewed to ensure that our commitments are consistent with USARAK's operations, operational resources, and environmental mission.

1.4 INSTALLATION AND REGULATORY RELATIONSHIPS

USARAK fully cooperates with all federal, state, and local regulatory agency representatives to ensure compliance with all applicable environmental regulations.

1.5 APPLICABILITY AND SCOPE

This regulation applies to all military commands and units, civilian activities, tenants, contractors, subcontractors, and consultants working at USARAK facilities, including Fort Richardson, Fort Wainwright, and Fort Greely.

The activities covered by this pamphlet include:

- Hazardous materials storage.
- Waste minimization and pollution prevention activities.
- Activities of waste generators.
- Institutional controls for excavation and other land and water uses.

Hazardous materials/hazardous waste transportation and hazardous waste treatment, storage (for over 90 days), and disposal are not addressed in this pamphlet. These activities are subject to all federal, state, and local laws and regulations.

1.6 PUNITIVE ACTION

Penalties for non-compliance with hazardous materials/regulated waste laws and regulations are severe. Violations by:

- Installations are punishable under federal law and may include civil penalties of up to $50,000 per day per violation for the post.

- Individuals can result in criminal prosecution and substantial fines, and 2 to 5 years of imprisonment.

- Civilian personnel can result in disciplinary action under DoD civilian personnel policies.

- Military personnel can result in punishment under the Uniform Code of Military Justice (UCMJ).

1.7 ENVIRONMENTAL EXCELLENCE AWARDS

Environmental Excellence Awards are awarded each year by the Garrison Commander for activities in pollution prevention and hazardous materials or regulated waste management. Current contacts for environmental awards are listed in the Key Environmental Contacts at the front of this document.

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2.0 OVERVIEW OF HAZARDOUS MATERIAL AND HAZARDOUS WASTES MANAGEMENT

Following the hazardous materials/regulated waste management procedures in this pamphlet is fundamentally important to USARAK and to you, because the procedures are focussed on protecting the safety of :

- Yourself
- Co-workers
- The public
- The environment

To protect against fire, explosion, spills, threats to health, and other serious consequences of improper hazardous materials/regulated waste management, Pamphlet 200-1 provides strict procedures for:

- Identifying hazardous materials/regulated wastes
- Labeling them
- Properly marking hazardous waste containers
- Storing them in correct containers and under proper conditions
- Using personal safety clothing and equipment when needed
- Training all hazardous materials/regulated waste management personnel in these procedures

Sometimes the reason behind a required procedure is not obvious. For example, the same hazardous material or hazardous waste may need to be treated differently from one situation to the next, depending on specifics in each situation, such as who is generating the waste, or how it will be used or disposed. Even if a procedure seems arbitrary and unnecessary, ***follow the procedure anyway***, because ***it is the law,*** and because it is usually based on past experiences or mishaps (even if the connection is not obvious).

In the environmental field, many terms can be confusing and often change from one regulation to the next. Although the following terms have very specific meanings in each individual regulation, you can use the descriptions given below to develop a basic understanding of their meaning and relationship (refer to the definitions in the regulations themselves to make regulatory compliance determinations).

Acutely hazardous wastes is a list of chemicals identified by the EPA for more stringent regulation because of their potential to cause harm to human health and the environment. Acutely hazardous waste is one type of hazardous waste (described below).

Hazardous materials is a list of chemicals and materials which was developed by DOT based on potential fire, explosion and health hazards encountered during transportation.

Hazardous waste is a list of chemicals and materials developed by the EPA based on the potential of these chemicals and materials to harm human health and the environment. It includes wastes, but not new, usable chemicals. Hazardous waste is one type of "regulated waste" (described below).

Additionally, you may hear the terms “hazardous chemicals” and “hazardous substances.”

Hazardous chemicals is a list of chemicals developed by OSHA based on the potential of these chemicals to harm workers or the public.

Hazardous substances is a list of selected hazardous materials, hazardous chemicals, and hazardous wastes to which additional regulations apply.

Regulated waste consists of acutely hazardous waste, hazardous waste, universal wastes, polychlorinated biphenyl (PCB) waste, waste asbestos-containing material, and some non-hazardous wastes burned for energy recovery (such as used oil).

Universal wastes consist of common materials such as light bulbs, batteries, and pesticides, which when discarded, require specific management and disposal due to the hazardous chemicals contained in them. Universal wastes are one type of regulated waste (described above).

Institutional Controls (IC) are administrative measures established to control property usage and are applicable to all known or suspected contaminated sites. These consist of limitations to excavation, use of groundwater, and other specific land uses and property transfer agreements. IC are required pursuant to certain decision documents and/or RODs.

3.0 RESPONSIBILITIES

In the following sections, the specific responsibilities of each individual or group managing hazardous materials/regulated wastes are described.

3.1 DIRECTORATE OF PUBLIC WORKS, ENVIRONMENT RESOURCES OFFICE

In managing hazardous materials/regulated waste, the responsibilities of the Directorate of Public Works, Environment Resources Office (PWE) are to:

a. Serve as the Garrison Commander's representative.

b. Provide the Garrison Commander with program and budget advice to ensure adequate funding and staffing.

c. Develop and conduct required training for personnel.

d. Advise all USARAK waste-generating facilities of EPA, ADEC, DoD, and Army requirements, including permits and compliance reports.

e. Coordinate with units/activities to sample and analyze the wastes they are generating, if no current profile exists or if their current waste-generating process changes.

f. Arrange for pick-up and turn-in of regulated waste containers from the units/activities on post.

g. Prepare and submit reports required by federal, state, or local agencies.

h. Monitor installation compliance with federal, state, and local regulations and recommend changes in policies or procedures to the Garrison Commander.

i. Prepare timely and thorough Resource Conservation and Recovery Act (RCRA) permit applications, modifications, renewals, records, reports, and responses to external agency Notices of Violation (NOV) for signature by the Garrison Commander.

j. Provide guidance on policies and procedures to all USARAK personnel about regulated waste generation, accumulation, transportation, treatment, storage, and disposal.

k. Coordinate with federal, state, and local agencies on related issues.

l. Develop and maintain RCRA contingency plans at USARAK facilities.

m. Conduct annual spill drills in conjunction with the post emergency coordinator.

n. Monitor tenant, consultant, contractor, and subcontractor operations to ensure compliance with applicable requirements.

o. Operate the Hazardous Waste Management System and conduct compliance inspections of regulated waste generators and storage units at post facilities.

3.2 DIRECTOR OF LOGISTICS

In managing hazardous materials/regulated waste, the responsibilities of the Director of Logistics are to:

a. Ensure that management and turn-in-for-disposal procedures comply with applicable requirements and procedures in this regulation.

b. Ensure that a copy of the current material safety data sheet (MSDS) is provided whenever a shipment of hazardous material is distributed to a receiving unit/activity.

c. Ensure that required and necessary information/training is available to USARAK personnel.

3.3 UNIT COMMANDERS/ACTIVITY SUPERVISORS

In managing hazardous materials/regulated waste, the responsibilities of Unit Commanders/Activity Supervisors are to:

a. Designate, in writing, one primary and at least one alternate manager.

b. File primary and alternate waste manager appointments (and any changes in appointments) immediately, in writing, with the post PWE Office.

c. Prevent spills or deposits on the ground or into any storm sewer, sanitary or domestic sewer, oil separator, or any water course or drainage.

d. Maintain and implement emergency procedures for response to releases, fires, or explosions.

e. Ensure hazardous materials/regulated waste identification, packaging, labeling, marking, transportation, and storage pending pick-up by approved contractor.

f. Integrate pollution prevention measures to minimize waste generation, specifically hazardous waste.

g. Provide waste minimization progress reports to PWE.

h. Provide PWE with necessary information to prepare reports for local, state, and federal regulatory agencies, the Army, and DoD.

i. Ensure that a copy of the MSDS for each stored or utilized hazardous material is maintained at the site and readily available to personnel (see Section 4, Preparing Site Environmental Notebooks).

j. Ensure that all personnel who handle, use, transport, or manage hazardous materials/regulated waste, or who respond to hazardous materials/regulated waste emergencies, know their responsibilities and receive appropriate training to properly conduct their duties.

k. Maintain a hazardous materials/regulated waste standard operating procedure (SOP), including emergency/spill response procedures.

l. Ensure that the facility, and any other areas for which the unit/activity is responsible, are well-maintained and that the grounds are not stained with petroleum, oils, or lubricants (POL), or other wastes.

m. Ensure proper management of hazardous material per Army Pamphlet 710-2 by:

- Implementing the Command Supply Discipline Program (CSDP)
- Using First In/First Out (FI/FO) Hazardous Materials Management

3.4 PRIMARY AND ALTERNATE HAZARDOUS MATERIALS/HAZARDOUS WASTE MANAGERS

In managing hazardous materials/regulated waste, the responsibilities of primary and alternate managers are to:

a. Designate one or more accumulation area(s) for each unit/activity location.

b. Conduct and document weekly inspections for proper use, labeling, marking, and storage of containers, including condition of containers and compatibility of wastes stored.

c. Notify PWE of wastes generated at the unit/activity or of changes in the type of hazardous waste-generating processes. Coordinate with PWE to sample and analyze generated wastes if no current waste profile exists or the waste-generating process changes. Arrange for the waste turn-in contractor to pick up full hazardous waste containers (particularly those containers approaching their accumulation time limits) and deliver replacements as necessary.

d. Conduct on-the-job training for site personnel about waste management accumulation areas. Verify that on-the-job training has been documented.

e. Read this pamphlet and the unit/activity hazardous materials/regulated waste SOP and attend the USARAK 24-hour Waste Handler Subject Matter Expert training course.

f. Update the hazardous materials/regulated waste SOP to reflect changes in regulations or in unit/activity operations that affect hazardous materials/regulated waste management practices. PWE must be provided with a copy of the SOP and notified of all subsequent changes to the SOP.

g. Verify that container logs are properly maintained. Accurately identify the contents of each container.

h. Conduct initial assessments and direct initial response actions in spills and emergencies. Act as the unit/activity emergency coordinator in the event of a spill, fire, or explosion until the post emergency coordinator arrives. These duties include:

- Ensuring that spills and other hazardous materials/regulated waste emergencies are immediately reported to the post fire department.

- Knowing basic hazard and risk assessment techniques.

- Selecting and using proper personal protective equipment (PPE) provided to the first responder operational level (29 CFR 1910.120).

- Understanding basic hazardous materials/regulated waste terms.

- Controlling, containing, and/or confining hazardous materials/regulated waste during an emergency using available resources and PPE.

- Evacuating unneeded personnel to a safe location during emergency operations, and evacuating all personnel if the emergency cannot be controlled.

- Implementing basic decontamination procedures.

- Implementing the emergency/spill response procedures in the site SOP.

i. Furnish PWE with required information before turning in waste.

j. Provide the Unit Commander/Activity Supervisor with necessary information to prepare reports for PWE.

k. Maintain an accurate inventory of hazardous materials/regulated waste that reflects changes in operations. Supply this inventory to PWE upon request.

l. Serve as the accumulation area's manager and conduct weekly inspections of these areas.

m. Ensure that unit/activity personnel comply with the hazardous materials/regulated waste SOP and all regulating authorities.

n. Maintain a unit/activity environmental notebook, as described in Section 4.

3.5 INDIVIDUAL RESPONSIBILITIES

In managing hazardous materials/regulated waste, the responsibilities of each person in a unit/activity are to:

a. Know who the unit/activity emergency coordinators are and what immediate actions to take in the event of a spill or emergency.

b. Know his/her responsibilities.

c. Receive appropriate training to properly conduct his/her duties. At a minimum, all personnel with hazardous materials/regulated waste responsibilities must read the unit/activity SOP and this pamphlet, and attend the USARAK basic 8-hour Hazardous Waste training course.

d. All personnel with hazardous materials/regulated waste responsibilities must know how to identify and place hazardous materials/regulated waste into proper containers and fill out the required container logs, as described in Section 8.

e. Incorporate pollution prevention methods when possible and feasible.

f. Use FI/FO method of hazardous materials management.

3.6 DEFENSE REUTILIZATION AND MARKETING OFFICE

In managing hazardous materials/regulated waste, the responsibilities of the Defense Reutilization and Marketing Office (DRMO) are to:

a. Operate the Fort Wainwright hazardous waste container storage unit (HWCSU) per the operating permit issued by the EPA.

b. Assist PWE in preparing required annual or biennial reports for submission to the EPA or ADEC.

c. Maintain and implement the Fort Wainwright HWCSU Plan, as required by its Part B Permit and all facility-specific interim status authorizations issued by the EPA.

d. Ensure that the following programs are in place for all DRMO workers at the Fort Wainwright HWCSU:

- Decontamination program
- New technology program
- Material handling program
- Training program
- Emergency response program

3.7 SUPPLY UNITS

In managing hazardous materials/regulated waste, the responsibilities of supply units are to:

a. Increase the purchase of recycled products whenever possible (as required by Executive Order 12873, issued on October 20, 1993). Procurement guidelines have been developed by the EPA for five target items:

- Paper and paper products
- Lubricating oils
- Tires
- Building insulation products
- Cement and concrete

b. Comply with procurement guidelines established by the EPA (issued on April 20, 1994) for purchase of items made with recycled materials, including:

- Vehicular engine coolant
- Construction products
- Traffic control cones and barriers
- Landscaping products
- Park and recreation products
- Non-paper office products

c. Review and revise procurement specifications to allow for procurement of recovered (recycled) materials. Guidelines do not have to be followed if doing so would result in unreasonable cost, inadequate competition, unreasonable delays, or inability to meet reasonable performance standards.

d. Establish an affirmative procurement plan that includes:

- A preference program
- A promotion program
- Procedures for obtaining and verifying estimates and certifications of recovered materials content
- Annual review and monitoring

e. Procure MSDSs for all purchased or procured materials and provide to the units/activities. Also, forward copies of revised MSDSs when they become available and keep a current copy of all MSDSs.

f. Ensure proper management of hazardous materials per Army Pamphlet 710-2 by:

- Implementing the CSDP
- Using FI/FO hazardous materials management

3.8 TENANTS, CONSULTANTS, CONTRACTORS, AND SUBCONTRACTORS

a. Tenants and contractors are required to comply with this pamphlet.

b. Tenants, consultants, contractors, and subcontractors must fulfill all tasks listed for units/activities.

c. All regulated wastes must be transported and disposed by the PWE waste turn-in contractor, or other waste transportation and disposal entity, in full compliance with all DOT, OSHA, and EPA regulations.

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4.0 PREPARING SITE ENVIRONMENTAL NOTEBOOKS

This section describes the organization of various references and types of documentation that must be kept by units/activities, including logs, checklists, inspection sheets, regulations, and MSDSs.

4.1 ENVIRONMENTAL NOTEBOOKS

At any USARAK site generating waste, the Hazardous Materials Managers and Hazardous Waste Managers must maintain an Environmental Notebook, which shall be organized according to the table of contents shown in Table 4-1 (several volumes may be necessary). Tenants, consultants, contractors, and subcontractors must also maintain an Environmental Notebook.

Table 4-1
Environmental Notebook Table of Contents

Tab	Contents of Section
Tab A	Current copy of Army Regulation (AR) 200-1; can be located in a separate notebook
Tab B	Current copy of Pamphlet 200-1; can be located in a separate notebook
Tab C	Commanding General's Green Tab Memorandum: Environmental Management
Tab D	Letter of Appointment for Hazardous Materials and Hazardous Waste Primary and Alternate Managers
Tab E	Hazardous Materials/Regulated Waste Staffing Report (all completed copies).
Tab F	Personnel Training Record (completed copies for all Unit/Activity Hazardous Material/Regulated Waste personnel)
Tab G	Hazardous Materials/Regulated Waste Inventory Log (all completed copies)
Tab H	Pollution Prevention Inventory and Review (all completed copies)
Tab I	Hazardous Materials/Regulated Waste Reduction Log (all completed copies)
Tab J	Container Logs (all completed copies)
Tab K	Weekly Storage Area Inspection Record (all completed copies)
Tab L	Emergency Contact List (all completed copies)
Tab M	Emergency Response Drill Record (all completed copies)
Tab N	Emergency Response Equipment Inspection (all completed copies)
Tab O	Pollution Incident Report (all completed copies)
Tab P	Environmental Compliance Inspection Checklist (all completed copies)
Tab Q	Notice of Environmental Violation (all completed copies)
Tab R	Hazardous Materials Usage and Pollution Prevention/Waste Reduction Report (all completed copies)
Tab S	Material Safety Data Sheets
Tab T	Environmental Bulletins
Tab U	Site Hazardous Material/Regulated Waste Standard Operating Procedures
Tab V	Calendar of inspections, reports, and other due dates

4.2 MATERIAL SAFETY DATA SHEETS (TAB S)

An MSDS for each hazardous material currently present in the workplace must be maintained in the Environmental Notebook readily and accessible to all personnel. MSDSs should be included for materials that are used in offices (e.g., correction fluid) and on the shop floor (e.g., lube oil). Note that different manufacturers of the same type of product will have different MSDSs. If you use four different brands of lube oil in your shop, you must have four different MSDSs in your notebook, one from each manufacturer. If an item's MSDS is not in your notebook, current sources for obtaining MSDSs are listed in the Key Environmental Contacts section of this pamphlet; or, if necessary, contact the manufacturer for a copy.

4.3 UNIT/ACTIVITY HAZARDOUS MATERIALS AND REGULATED WASTE STANDARD OPERATING PROCEDURE (TAB U)

An SOP specific to the unique nature of each unit/activity must be prepared by the Hazardous Materials or Hazardous Waste Primary or Alternate Managers. This SOP must be updated when procedures change. Copies of both the original SOP and any revisions must be provided to and approved by PWE.

The SOP will include:

- Statement of the document's purpose
- Explanation of the document's scope
- Definitions
- Job descriptions and responsibilities
- List of hazardous materials and regulated waste
- Facility floor map of the facility's physical layout showing the location of:
  - All hazardous materials and regulated waste use and storage points
  - Evacuation routes
  - Fire extinguishers
  - Emergency phones or other communication devices
  - Emergency/spill response equipment
- PPE information
- Procedures for sounding the emergency alarm system
- Emergency/spill response procedures
- List of emergency/spill response equipment
- List of required training by job title or job task

4.4 CALENDAR OF DUE DATES (TAB V)

Each unit/activity must maintain a calendar showing inspection and report schedules and other due dates. The calendar must be kept current by the Hazardous Materials Manager and the Hazardous Waste Manager, and filed under Tab V in the Environmental Handbook.

5.0 IDENTIFYING HAZARDOUS MATERIALS AND REGULATED WASTE

The purpose of this section is to list by common name some of the hazardous materials and regulated waste generally found in USARAK facilities, and to describe how to identify and process them. Materials and waste are discussed below in alphabetic order.

"Wastes must be correctly identified, properly packaged, and correctly labeled and marked prior to pick-up by waste turn-in contractor. It is imperative, *prior to the scheduled pick-up day*, that the PWE waste turn-in contractor be notified of the type and quantity/volume of hazardous waste anticipated. (If the source or parent product of the waste is well known or reasonably certain, the MSDS for that product must be submitted with the waste container). The PWE waste turn-in contractor will then provide and deliver to the facility a sufficient number of approved containers and will properly label those containers prior to on-site delivery. The unit/activity will be responsible for additional, waste-specific marking and labeling. (The packaging instructions in Section 8 and the labeling and marking instructions in Section 10 apply.) Important information required on the label includes:

- Product name, which is the name listed in the title of each section (below);
- Proper label, which is the description in upper case letters under "b. Classification" in each product section (below).

Contact PWE for details on packaging, labeling, and marking.

5.1 ABSORBENT PADS, USED

a. **Identification.** Absorbents used in drip pans, to clean up spills, or wipe containers and equipment.

b. **Classification.** Prior to use/storage: Not applicable; may be FLAMMABLE or COMBUSTIBLE, determined based on testing.
When disposed: Determined based on testing; contact PWE for determination.

c. **Pollution prevention.** POL-contaminated materials must be drummed and kept separate from chemical-contaminated materials. POL-contaminated absorbent pads, absorbents, rags, dry sweep and debris may be mixed in the same drum, but not with contaminated soil. There must be no free liquids in the container.

d. **Testing**. Contact PWE for testing requirements.

e. **Packaging.** POL-contaminated materials can be packaged in 55-gallon steel drums.

f. **Special equipment**. Depends on contaminant in the absorbent.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.2 AEROSOL CANS, EMPTY, DEPRESSURIZED

a. **Identification.** Includes aerosol cans that previously contained compressed air (or other gaseous carrier or propellant), cleaning products, paint, enamel, lacquer, or other materials. Except for "acutely hazardous waste" (see Sec. 5.12, a., 2.), aerosol cans are considered "empty" if they no longer contain more than 3 percent (%) of the original volume/net weight of contents. Aerosol cans are considered "depressurized" if the residual pressure of the contents is equal to or less than atmospheric pressure. ***Units/activities are advised to attempt no forced or deliberate depressurization of aerosol cans such as punching a hole in the can without proper, approved equipment and procedures. The PWE waste turn-in contractor will depressurize aerosol cans at the hazardous waste accumulation area.***

b. **Classification.** Prior to use/storage: Not applicable
When disposed: NON-HAZARDOUS WASTE

c. **Pollution prevention**. Use all material in the can. After each use, clean the spray nozzle by inverting the can and spraying to prevent clogging.

d. **Testing**. None identified.

e. **Packaging**. Use an unserviceable 55-gallon drum.

f. **Special equipment**. None identified.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.3 AEROSOL CANS, NOT EMPTY

a. **Identification.** Includes aerosol cans that previously contained compressed air (or other gaseous carrier or propellant), cleaning products, paint, enamel, lacquer, or other materials. Except for "acutely hazardous waste" (see Sec. 5.12, a., 2.), aerosol cans are considered "empty" if they no longer contain more than 3% of the original volume/net weight of contents. Aerosol cans are considered "depressurized" if the residual pressure of the contents is equal to or less than atmospheric pressure. ***Units/activities are advised to attempt no forced or deliberate depressurization of aerosol cans such as punching a hole in the can without proper, approved equipment and procedures. The PWE waste turn-in contractor will depressurize aerosol cans at the hazardous waste accumulation area.***

b. **Classification.** Prior to use/storage: HAZARDOUS MATERIALS; may be FLAMMABLE or COMBUSTIBLE, determined by contents.
When disposed: Contact PWE for a case-specific determination.

c. **Pollution prevention**. Use all material in the can. After each use, clean the spray nozzle by inverting the can and spraying to prevent clogging.

d. **Testing.** Contact PWE for a case-specific determination.

e. **Packaging.** Any DOT-approved package.

f. **Special equipment.** None identified.

g. **Disposal or recycling.** Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site depressurization and recycling or disposal.

5.4 ANTIFREEZE

a. **Identification.** Antifreeze products (usually ethylene glycol mixtures) are typically clear, brightly-colored (e.g., bright green, orange, or red), slightly syrupy liquids.

b. **Classification.**

Prior to use/storage:	HAZARDOUS MATERIAL
When disposed:	HAZARDOUS WASTE PENDING ANALYTICAL RESULTS
When recycled:	NON-HAZARDOUS WASTE FOR ENERGY RECOVERY OR RECYCLING

c. **Pollution prevention.** Do not mix antifreeze with used oil or other petroleum products. Typically, petroleum-contaminated ethylene glycol, or used oil that is contaminated with ethylene glycol, cannot be recycled and must be disposed.

d. **Testing.** None identified for uncontaminated materials.

e. **Packaging**. Waste may be stored in a 55-gallon steel drum.

f. **Special equipment.** None identified.

g. **Disposal or recycling**. Used antifreeze (ethylene glycol) may be recycled at the site if recycling equipment is available.

5.5 ASBESTOS

a. **Identification.** Asbestos may be present in many different products, including wall and ceiling insulation, pipe insulation, spray-on insulation, ceiling tiles, floor tiles, concrete, brake shoes, and gaskets.

b. **Warning.** ***Do not test, remove or dispose of asbestos yourself; contact PWE.*** Asbestos testing, removal, packaging, and disposal must be performed by trained, certified asbestos workers. Therefore, do not perform asbestos abatement unless you are qualified in this area and have been instructed by PWE to do so. The exception to this rule is asbestos-containing brake shoes. As long as the asbestos-pad shoe on the brake shoe is intact (not "friable" - crumbling or falling away in pieces), the entire used brake shoe should be double-bagged in 6-mil, polyethylene bags and discarded with non-hazardous waste for landfilling. The outer bag must have the following markings: a) name of the point of contact (POC), b) building numbers, c) the POC phone number, and d) identification of contents (i.e., "asbestos-containing brake shoes").

c. **Reference**. Information pertaining to asbestos management is not included in this pamphlet, but is provided in the Asbestos Management Plan (see Section 18.6).

5.6 BATTERIES

a. **Identification**. Both rechargeable and non-rechargeable, ***INTACT*** batteries, including lead-acid, alkaline, nickel-cadmium, lithium, and automotive batteries.

b. **Classification.** Prior to use/storage: HAZARDOUS MATERIAL; older lithium batteries may be FLAMMABLE.
When disposed: UNIVERSAL WASTE – USED BATTERIES Do not disassemble batteries, since this often requires that the parts be managed as hazardous waste.

c. **Pollution prevention**. Minimize the use of batteries by using electrically-powered equipment or rechargeable batteries, when possible. Do not disassemble the batteries, since this eliminates some recycling opportunities.

d. **Testing**. None identified.

e. **Packaging**. Bag each type of battery separately in plastic and place in a DOT-approved container.

f. **Special equipment**. None identified.

g. **Disposal or recycling.** Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

h. **Warning.** Do not break batteries open.

5.7 BATTERIES, DISASSEMBLED PARTS

a. **Identification.** Batteries that have been taken apart (e.g., lead-acid batteries used in motorcycles, automobiles, and trucks that have had the metal core removed). However, discharging batteries to remove the electrical charge, regenerating used batteries, disassembling battery packs to remove individual batteries or cells, removing batteries from consumer products, or removing electrolyte from batteries are not considered disassembling.

b. **Classification.** Prior to use/storage: HAZARDOUS MATERIAL
When disposed: HAZARDOUS WASTE

c. **Pollution prevention.** Do not disassemble the batteries, since this eliminates the opportunity to recycle them and increases the regulatory requirements.

d. **Testing.** None identified.

e. **Packaging**. Use plastic containers for both the lead (metal) core and battery acid, since battery acid corrodes skin, eyes, clothing, steel, and aluminum.

f. **Special equipment**. At a minimum, wear rubber gloves and eye protection when managing lead acid batteries. A corrosive chemical-resistant apron is highly recommended. Battery acid often forms a white powder on the battery case that corrodes skin, eyes, clothing, steel, and aluminum. Keep supplies of absorbents suitable for acids in the on-site spill response equipment.

g. **Disposal or recycling.** Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.8 BRAKE FLUID

a. **Identification.** Brake fluid used in vehicles.

b. **Classification.**

Prior to use/storage:	HAZARDOUS MATERIAL; COMBUSTIBLE
When disposed:	HAZARDOUS WASTE PENDING ANALYTICAL RESULTS
When recycled:	NON-HAZARDOUS WASTE FOR ENERGY RECOVERY OR RECYCLING

c. **Pollution prevention.** Do not mix brake fluid with antifreeze. Typically, petroleum-contaminated ethylene glycol, or used oil that is contaminated with ethylene glycol, cannot be recycled and must be disposed.

d. **Testing.** Contact PWE for analytical testing.

e. **Packaging.** Brake fluid can be stored in a 55-gallon drum.

f. **Special equipment.** At a minimum, wear eye protection and use impermeable gloves (not cloth or leather). Brake fluid corrodes skin and eyes.

g. **Disposal or recycling.** Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.9 BRAKE SHOES

a. **Identification.** Asbestos may be present in many different products, including brake shoes.

b. **Warning.** ***Do not test, remove or dispose of asbestos yourself; contact PWE.*** Asbestos testing, removal, packaging, and disposal must be performed by trained, certified asbestos workers. Therefore, do not perform asbestos abatement unless you are qualified in this area and have been instructed by PWE to do so.

c. **Packaging.** For disposal, intact brake shoes should be double-bagged in 6-mil, polyethylene bags and discarded with non-hazardous waste for landfilling. The outer bag must have the following markings: a)

name of the POC, b) building number, c) the POC phone number, and d) identification of contents (i.e., "asbestos-containing brake shoes").

d. **Reference**. Information pertaining to asbestos management is not included in this regulation, but is provided in the Asbestos Management Plan (see Section 18.6).

5.10 DRY SWEEP, CONTAMINATED

a. **Identification.** Absorbent used in drip pans or to clean up liquid spills.

b. **Classification.** Prior to use/storage: Not applicable; may be FLAMMABLE or COMBUSTIBLE, determined based on testing.
When disposed: Determined based on testing; contact PWE for determination.

c. **Pollution prevention.** None identified.

d. **Testing.** Contact PWE for testing requirements.

e. **Packaging.** POL-contaminated materials must be drummed and kept separate from chemical-contaminated materials. POL-contaminated absorbent pads, absorbents, rags, dry sweep, and debris may be mixed in the same drum, but not with contaminated soil. There must be no free liquids in the container.

Chemical-contaminated materials must be drummed and kept separate from POL-contaminated materials. Chemical-contaminated absorbent pads, absorbents, rags, dry sweep, and debris may be mixed in the same drum, but not with contaminated soil. There must be no free liquids in the container.

f. **Special equipment.** Depends on contaminant in the absorbent.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.11 DRY SWEEP, UNUSED

a. **Identification.** Dry sweep material that has not been used or contaminated.

b. **Classification**. Prior to use/storage: Not applicable
When disposed: NON-HAZARDOUS WASTE

c. **Pollution prevention**. Give unused dry sweep to another unit/activity for use in their operations.

d. **Testing**. None identified.

e. **Packaging**. None identified.

f. **Special equipment**. None identified.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.12 EMPTY CONTAINERS

a. **Identification.** A container is considered empty when all material has been removed according to procedures appropriate to the specific container, including pouring, pumping, or using air or hydraulic pressure.

Maximum amounts that can be left in the container are:

1. For container with a volume of less than 110 gallons, leave no more than:

- 1 inch in the bottom or inner liner, or
- 3% in the bottom or inner liner

2. For acutely hazardous waste in a container with a volume of less than 110 gallons, container must be:

- Treated as a hazardous waste.
- Contents removed and container triple-rinsed. (Triple rinsates must be collected and contained, labeled, and marked appropriately for pick-up and disposal.)

Acute hazardous wastes must be identified by PWE.

b. **Classification.** Prior to use/storage: Not applicable
When disposed: NON-HAZARDOUS WASTE

c. **Pollution prevention**. Emptied containers in good, serviceable condition may be reused for purposes OTHER THAN for storage of hazardous waste.

d. **Testing.** None identified.

e. **Packaging.** None identified.

f. **Special equipment**. At a minimum, wear eye protection when emptying container.

g. **Disposal or recycling**. Contact PWE for direction.

5.13 EXPLOSIVES

a. **Identification.** Explosives include ammunition, shells, gun powder, plastic explosives, and other materials.

b. **Warning.** Do not attempt to manage explosive materials.

c. **Reference**. Information on explosive materials management is not provided in this pamphlet. Contact Explosive Ordnance Disposal (EOD) for explosive materials management procedures.

5.14 FLUORESCENT LIGHT BALLAST

a. **Identification.** Ballast associated with fluorescent lights.

b. **Classification**. Prior to use/storage: Not applicable
When disposed: Pre-1978 – PCB WASTE
Post-1978 – NON-HAZARDOUS WASTE

c. **Pollution prevention**. None identified.

d. **Testing**. None identified.

e. **Packaging**. None identified.

f. **Special equipment**. None identified.

g. **Disposal or recycling**. Pre-1978 Ballast: if found, contact PWE immediately for information. Post-1978 ballast: properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.15 FLUORESCENT LIGHT BULBS AND OTHER MERCURY-CONTAINING BULBS

a. **Identification.** Fluorescent, high-intensity discharge, neon, mercury vapor, high-pressure sodium, and metal halide light bulbs.

b. **Classification**. Prior to use/storage: Not applicable
When disposed: UNIVERSAL WASTE – WASTE LAMPS

c. **Pollution prevention**. Purchase long-life light bulbs and turn off lights when not needed.

d. **Testing**. None identified.

e. **Packaging**. Do not break light bulbs. When broken, mercury is released. Fluorescent light bulbs can be placed in their original shipping boxes or in special fluorescent light bulb bulk packaging cartons provided by the PWE waste turn-in contractor.

f. **Special equipment**. None identified.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.16 FREON™ REFRIGERANTS

a. **Identification.** Freon™ is used in refrigeration units and is an ozone-depleting substance (ODS).

b. **Warning.** ODS requires special handling and management. Contact PWE for information.

c. **Reference.** Information on Freon™ management is not included in this pamphlet. Information on Freon™ and other ODS management is provided in the Ozone-Depleting Chemicals Management Plan available from PWE.

5.17 FUELS

a. **Identification.** Blazo™, butane, diesel, gasoline, home heating oil, JP-4, kerosene, methanol, propane, and Stoddard solvent.

b. **Classification.**

Prior to use/storage:	HAZARDOUS MATERIAL; FLAMMABLE or COMBUSTIBLE
When disposed:	HAZARDOUS WASTE
When recycled:	NON-HAZARDOUS WASTE FOR ENERGY RECOVERY OR RECYCLING

c. **Pollution prevention.** Use all fuel or share with other units/activities. Do not mix different fuels with each other, with used oil, or with water.

d. **Testing.** None identified.

e. **Packaging.** Fuels can be stored in 55-gallon drums.

f. **Special equipment.** Fuels are combustible or flammable. Do not store near flame or heat source.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal. Occasionally, the PWE waste turn-in contractor may pick up oil for use in on-post oil-burning facilities.

5.18 GAS CYLINDERS, ACETYLENE, WITH ACETYLENE

a. **Identification.** Full or partially full acetylene gas cylinders.

b. **Classification**.

Prior to use/storage:	HAZARDOUS MATERIAL; FLAMMABLE
When disposed:	HAZARDOUS WASTE

c. **Pollution prevention**. Use all material in the cylinder. Give usable cylinders to another unit/activity for use in their operations.

d. **Testing**. None identified.

e. **Packaging**. DOT-approved package. The cylinder may be the DOT-approved package if properly maintained and tested.

f. **Special equipment**. None identified.

g. **Disposal or recycling**. Properly package and label waste. Contact PWE for disposal procedures.

5.19 GAS CYLINDERS, ACETYLENE, EMPTY, DEPRESSURIZED

a. **Identification.** Cylinders are considered empty if they are depressurized.

b. **Classification**. Prior to use/storage: HAZARDOUS MATERIAL
When disposed: NON-HAZARDOUS WASTE

c. **Pollution prevention**. Use all material in the cylinder.

d. **Testing**. None identified.

e. **Packaging**. DOT-approved package. The cylinder may be a DOT-approved package if properly maintained and tested.

f. **Special equipment**. None identified.

g. **Disposal or recycling**. Properly package and label waste. Contact PWE for disposal procedures.

5.20 GAS CYLINDERS, GAS, EMPTY, DEPRESSURIZED

a. **Identification.** Cylinders are considered empty if they are depressurized.

b. **Classification**. Prior to use/storage: HAZARDOUS MATERIAL; may be FLAMMABLE or COMBUSTIBLE, depending on contents
When disposed: NON-HAZARDOUS WASTE

c. **Pollution prevention**. Use all material in the cylinder. Give usable cylinders to another unit/activity for use in their operations.

d. **Testing**. None identified.

e. **Packaging**. DOT-approved package. The cylinder may be the DOT-approved package if properly maintained and tested.

f. **Special equipment**. None identified.

g. **Disposal or recycling**. Properly package and label waste. Contact PWE for disposal procedures.

5.21 GAS CYLINDERS, OTHER CONTENTS

a. **Identification.** Gas cylinders with gas remaining in them, and cylinders above atmospheric pressure. Cylinders are considered empty if they are depressurized.

b. **Classification**. Prior to use/storage: HAZARDOUS MATERIAL; may be FLAMMABLE or COMBUSTIBLE, depending on contents.
When disposed: HAZARDOUS WASTE PENDING ANALYTICAL RESULTS

c. **Pollution prevention**. Use all material in the cylinder. Give usable cylinders to another unit/activity for use in their operations.

d. **Testing**. Contact PWE for testing.

e. **Packaging**. DOT-approved package. The cylinder may be the DOT-approved package if properly maintained and tested.

f. **Special equipment**. None identified.

g. **Disposal or recycling**. Properly package and label waste. Contact PWE for disposal procedures.

5.22 GAS CYLINDERS, PROPANE, EMPTY, DEPRESSURIZED

a. **Identification.** Small, empty propane cylinders used on camp stoves and lanterns. Cylinders are considered empty if they are depressurized.

b. **Classification**. Prior to use/storage: Not applicable
When disposed: NON-HAZARDOUS WASTE

c. **Pollution prevention**. Use all material in the cylinder. After each use, clean the nozzle to prevent clogging.

d. **Testing**. None identified.

e. **Packaging.** Any DOT-approved package.

f. **Special equipment.** None identified.

g. **Disposal or recycling**. Properly package and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.23 GAS CYLINDERS, PROPANE, WITH PROPANE

a. **Identification.** Propane tanks and cylinders. Cylinders are considered empty if they are depressurized.

b. **Classification**. Prior to use/storage: HAZARDOUS MATERIAL; FLAMMABLE
When disposed: HAZARDOUS WASTE

c. **Pollution prevention**. Use all material in the cylinder. Give usable cylinders to another unit/activity for use in their operations.

d. **Testing**. None identified.

e. **Packaging**. DOT-approved package. The cylinder may be the DOT-approved package if properly maintained and tested.

f. **Special equipment**. None identified.

g. **Disposal or recycling**. Properly package and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.24 HALON™

a. **Identification.** Halon™ is found in fire extinguishers labeled as Halon™.

b. **Classification**. Prior to use/storage: OZONE-DEPLETING SUBSTANCE
When disposed: OZONE-DEPLETING SUBSTANCE. Contact PWE for waste classification.

c. **Pollution prevention**. Use fire extinguishers that do not contain Halon™.

d. **Testing**. None identified.

e. **Packaging**. None identified.

f. **Special equipment**. None identified.

g. **Disposal or recycling**. Identify Halon™ fire extinguishers as "waste" and label as such. Halon™ 1211, 1301, and 2402 are collected by the Defense Logistics Agency and held in a reserve for Mission Critical Requirements. Contact PWE for shipping and recycling protocols.

5.25 HYDRAULIC FLUID

a. **Identification.** Hydraulic fluid used in vehicles and equipment.

b. **Classification**. Prior to use/storage: HAZARDOUS MATERIAL
When disposed: HAZARDOUS WASTE PENDING ANALYTICAL RESULTS
When recycled: NON-HAZARDOUS WASTE FOR ENERGY RECOVERY OR RECYCLING

c. **Pollution prevention**. None.

d. **Testing**. None identified.

e. **Packaging**. DOT-approved package.

f. **Special equipment**. None identified.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.26 LEAD-BASED PAINT

a. **Identification.** Lead-based paint was used in the past on housing, tanks, metal, and wood. Surfaces painted before 1979 often contain lead-based paint.

b. **Warning.** Do not attempt to remove lead-based paint unless trained in lead-based paint testing and removal and instructed by PWE to do so.

c. **Reference.** Information on lead-based paint management is not included in this pamphlet, but is provided in the Lead-Based Paint Management Plan (see Section 18.7).

5.27 MEDICAL WASTE

a. **Identification.** Medical waste consists of any bandage, towel, clothing, or other material that is contaminated with blood, urine, or feces. It also includes hypodermic needles and other sharps. Medical and infectious waste and units/activities which generate these are primarily regulated under OSHA regulations rather than under "hazardous waste" (RCRA) regulations. Only medical/infectious waste incinerators and their performance characteristics are regulated under hazardous waste regulations.

b. **Classification.** Prior to use/storage: Not applicable
When disposed: MEDICAL WASTE

c. **Pollution prevention.** None identified.

d. **Testing.** None identified.

e. **Packaging.** Contact the Medical Supply Officer for information.

f. **Special equipment.** Contact the Medical Supply Officer for information.

g. **Disposal or recycling.** Never place medical waste in a trash can, dumpster, or any other unauthorized container. Contact the Medical Supply Officer for instructions on handling, packaging, and disposing of medical waste.

5.28 OIL FILTERS, USED, NOT TERNE-PLATED

a. **Identification.** Use the MSDS sheet to determine if a filter is terne-plated.

b. **Classification.** Prior to use/storage: Not applicable
When disposed: NON-HAZARDOUS WASTE

c. **Pollution prevention.** Use oil filters that are not terne-plated.

d. **Testing.** None identified.

e. **Packaging.** Used oil filters must be crushed and drained, or gravity “hot-drained”. "Hot-drained" means that the filter is drained while near engine operating temperature and above room temperature. Package drained filter separately from the used oil. Manage used oil according to Section 5.30, Oils and Grease.

f. **Special equipment.** At a minimum, wear eye protection and gloves.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.29 OIL FILTERS, USED, TERNE-PLATED

a. **Identification.** Use the MSDS sheet to determine if a filter is terne-plated.

b. **Classification.** Prior to use/storage: Not applicable
When disposed: HAZARDOUS WASTE

c. **Pollution prevention**. Use oil filters that are not terne-plated.

d. **Testing.** None identified.

e. **Packaging.** Used oil filters must be crushed and drained or gravity “hot-drained”. "Hot- drained" means that the filter is drained while near engine operating temperature and above room temperature. Package drained filter separately from the used oil. Manage used oil according to Section 5.30, Oils and Grease.

f. **Special equipment.** At a minimum, wear eye protection and gloves.

g. **Disposal or recycling.** Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.30 OILS AND GREASE

a. **Identification.** Used lubricating oil and brake fluid drained from motorized vehicle (internal combustion) engines, generators, etc., and including automotive grease and non-PCB transformer oil.

b. **Classification.** Prior to use: HAZARDOUS MATERIAL

After use/during waste storage:	USED OIL or (if contamination with hazardous waste is suspected) HAZARDOUS MATERIAL PENDING ANALYTICAL RESULTS
When disposed/recycled:	NON-HAZARDOUS WASTE (USED OIL) FOR ENERGY RECOVERY OR RECYCLING

c. **Pollution prevention.** Do not mix used oil with antifreeze (ethylene glycol). Typically, petroleum-contaminated ethylene glycol, or used oil that is contaminated with ethylene glycol, cannot be recycled and must be disposed.

d. **Testing.** Contact PWE for site-specific testing requirements.

e. **Packaging.** Used oil can be stored in a 55-gallon, closed-head steel drum.

f. **Special equipment.** At a minimum, wear eye protection and use impermeable gloves.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.31 PAINT, OIL-BASED OR SOLVENT-BASED

a. **Identification**. Paint includes paint, enamel, shellac, lacquers, and varnishes. Latex paint (water-based) is not included.

b. **Classification.**

Prior to use/storage:	HAZARDOUS MATERIAL, often FLAMMABLE or COMBUSTIBLE, determined by contents.
When disposed:	Determined by contents. Contact PWE for determination. In interim, label as HAZARDOUS WASTE PENDING ANALYTICAL RESULTS.

c. **Pollution prevention**. Order only as much paint as necessary for the task. Share excess paint with other units/activities. If more than one person is painting, monitor the number of open cans so that multiple, partially-used containers do not remain at the end of the job. Do not mix paints together. Use water-based (latex paint) when possible, rather than oil-based paint.

d. **Testing.** Contact PWE immediately for testing requirements.

e. **Packaging**. Close the original container. Boxes or 55-gallon drums can be used for packaging cans of paint.

f. **Special equipment**. Contact PWE for information.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.32 PAINT THINNERS AND SOLVENTS

a. **Identification.** This category includes paint thinners, reducers, removers (flammable and combustible, not corrosive), solvents, and other mixed chemical paint-related products used in painting. It does not include contaminated acetone, toluene, xylene, ethanol, or other pure chemicals that are contaminated. Do not mix paint thinners and solvents together.

b. **Classification.** Prior to use/storage: HAZARDOUS MATERIAL; often FLAMMABLE or COMBUSTIBLE, determined by contents.
When disposed: HAZARDOUS WASTE

c. **Pollution prevention.** Use latex paints (water-based) when possible to eliminate the need for thinners and solvents. Remove paint by mechanical means such as scraping or sanding.

d. **Testing.** Contact PWE for material-specific requirements.

e. **Packaging.** Retain in the original container when possible and securely close. Multiple closed containers in good condition can be transported in boxes. These materials are combustible or flammable. Do not store near fire, flame, or a heat source.

f. **Special equipment.** At a minimum, consider using respirators and/or ventilation. Wear gloves and eye protection.

g. **Disposal or recycling.** Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.33 PAINT, WATER-BASED

a. **Identification.** Water-based paints are labeled as latex paint or water-based paint.

b. **Classification.** Prior to use/storage: HAZARDOUS MATERIAL
When disposed: Determined by contents.

c. **Pollution prevention**. Order only as much paint as necessary for the task. Share excess paint with other units/activities. If more than one person is painting, monitor the number of open cans so that multiple partially-used containers do not result. Do not mix paints together. Use water-based (latex paint) when possible, rather than oil-based paint.

d. **Testing**. None identified.

e. **Packaging**. Leave empty paint cans open to dry paint, then close the paint cans.

f. **Special equipment**. None identified.

g. **Disposal or recycling**. Dried water-based paint and paint cans can be put in a dumpster or trash can. Paint must be completely dry and have no free liquids.

5.34 PCBs

Final PCBs are being removed from the Fort Wainwright power plant. All other PCBs were removed from the posts. If PCBs are found, contact PWE immediately for information.

5.35 PESTICIDES, HERBICIDES, AND RODENTICIDES, UNUSED

a. **Identification.** This includes pesticides, herbicides, and rodenticides. Some common materials are Warfarin™, Lindane™, DDT, and 2,4-D. Spilled pesticides, herbicides, and rodenticides are not included and must be managed as a non-routine waste (i.e., Hazardous Waste Pending Analytical Results).

b. **Classification.** Prior to use/storage: HAZARDOUS MATERIAL
When disposed: UNIVERSAL WASTE – WASTE PESTICIDE

c. **Pollution prevention**. Use all material or share excess with other units/activities.

d. **Testing.** Testing is not required if the material is in its original container and retains its original label.

e. **Packaging**. Pesticides may be stored in their original containers if they are in good condition and not leaking. This means that they show no evidence of leakage, spillage or damage. Containers can be placed in a box for on-site labeling and storage. The containers must bear the original labels in readable form. Containers without intact original labels must be labeled "Waste Pesticides." Incompatible pesticides must not be packed in the same container.

f. **Special equipment.** Contact PWE for information.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.36 PHOTO-DEVELOPING CHEMICALS

a. **Identification.** Developer, fixative, and stop bath.

b. **Classification.** Prior to use/storage: HAZARDOUS MATERIAL; may be FLAMMABLE or COMBUSTIBLE, determined by contents.
When disposed: HAZARDOUS WASTE

c. **Pollution prevention**. Have photos developed at a commercial photo development laboratory. Use a silver recovery unit with photo developing equipment.

d. **Testing**. Contact PWE for information.

e. **Packaging**. Contact PWE for information.

f. **Special equipment**. Contact PWE for information.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.37 POL-CONTAMINATED SOIL

a. **Identification.** Soil contaminated with POL from a spill or leak.

b. **Classification**. Prior to use/storage: Not applicable
When disposed: Determined based on testing. Contact PWE for determination.

c. **Pollution prevention.** Avoid spills and leaks.

d. **Testing.** Contact PWE for determination.

e. **Packaging.** Do not mix with POL-contaminated dry sweep, debris, or rags. Do not mix with any material that is chemically contaminated. Packaging can be in 55-gallon drums or overpack salvage drums.

f. **Special equipment**. None identified.

g. **Disposal or recycling.** Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.38 RADIOACTIVE MATERIALS

a. **Identification.** Radioactive materials typically have a radioactive label attached.

b. **Warning.** Do not attempt to manage radioactive materials. Contact PWE for information.

c. **Reference.** Information on radioactive materials management is not included in this regulation. Contact the Safety Office for information.

5.39 RAGS, USED

a. **Identification.** Rags used to wipe equipment and containers.

b. **Classification.** Prior to use/storage: Not applicable; may be FLAMMABLE or COMBUSTIBLE, determined by contents.
When disposed: Determined by contents; contact PWE for determination.

c. **Pollution prevention.** Minimize leaks and spills.

d. **Testing.** None identified.

e. **Packaging.** POL-contaminated materials can be packaged in 55-gallon drums or other appropriate containers and kept separate from chemical-contaminated materials. POL-contaminated absorbent pads, absorbents, rags, dry sweep, and debris may be mixed in the same drum, but not with contaminated soil. There must be no free liquids in the container.

Chemical-contaminated materials must be drummed and kept separate from POL-contaminated materials. Chemical-contaminated absorbent pads, absorbents, rags, dry sweep, and debris may be mixed in the same drum, but not with contaminated soil. There must be no free liquids in the container.

f. **Special equipment.** Depends on contaminant in the absorbent.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.40 SANDBLAST RESIDUE

a. **Identification**. Material generated by sandblasting.

b. **Classification**. Prior to use/storage: Not applicable; may be FLAMMABLE or COMBUSTIBLE, determined by contents.
When disposed: Determined by contents.

c. **Pollution prevention**. Do not mix sandblast materials with other materials such as soil, debris, or rags.

d. **Testing**. Contact PWE for testing requirements.

e. **Packaging**. Sandblast residues can be placed in 55-gallon steel drums.

f. **Special equipment**. At a minimum, consider using an approved respirator for the specific task when handling sandblast residues.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.41 SOLVENTS AND DEGREASERS, CHLORINATED

a. **Identification.** Tetrachloroethane, trichloroethene, trichloroethylene, and perchloroethylene or PERC, TRIC, TCE, PCE, and TCA.

b. **Classification**. Prior to use/storage: HAZARDOUS MATERIAL; may be FLAMMABLE or COMBUSTIBLE, based on material.
When disposed: HAZARDOUS WASTE

c. **Pollution prevention.** Use alternative solvent or degreaser such as *Electron Solvent* (by Ecolink, Inc.), *Daraclean 282 Solvent* (by W. R. Grace & Co.), or *PF Degreaser* (by P-T Technologies, Inc.). For NSNs of these and other, acceptable replacement items, call PWE.

d. **Testing**. Contact PWE for testing requirements.

e. **Packaging.** Solvents and degreasers can be placed in 55-gallon closed-head steel drums.

f. **Special equipment**. At a minimum, consider using a respirator, eye protection, and gloves when handling solvents and degreasers.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.42 SPILL RESPONSE WASTES

a. **Identification.** Spilled or leaked products, contaminated soil, and water or solvents from cleaning contaminated equipment or tools.

b. **Classification.**

Prior to use/storage:	Not applicable; may be FLAMMABLE or COMBUSTIBLE, based on contents.
When disposed:	HAZARDOUS WASTE PENDING ANALYTICAL RESULTS; contact PWE for determination

c. **Pollution prevention.** Minimize leaks and spills by maintaining equipment and containers in good condition.

d. **Testing.** Contact PWE for determination.

e. **Packaging.** Containerize liquids separate from solid materials.

f. **Special equipment.** Contact PWE for correct procedures.

g. **Disposal or recycling.** Contact PWE for correct procedures.

5.43 THERMOSTATS WITH MERCURY AMPOULE

a. **Identification.** Thermostats containing an ampoule of mercury. Spilled mercury from thermostats or ampoules is not included and must be managed as a non-routine waste (i.e., Hazardous Waste Pending Analytical Results).

b. **Classification.**

Prior to use/storage:	Not applicable
When disposed:	UNIVERSAL WASTE - MERCURY THERMOSTATS

c. **Pollution prevention.** Do not break ampoule and allow mercury to escape.

d. **Testing.** None identified.

e. **Packaging.** Any thermostat with a mercury ampoule that shows evidence of leakage, spillage, or damage, or that could leak in the foreseeable future, must be placed in a container. Ampoules may be removed from the thermostats as long as they are removed in a manner that will prevent breakage of the ampoule, the removal is performed over or in a containment device, and mercury spill response materials are available to immediately respond to any spill.

f. **Special equipment.** Consider respiratory protection if mercury is not in a sealed container. Use gloves. Any mercury spilled during an operation, and the debris generated during cleanup, will be considered a Hazardous Waste and must be accumulated and disposed of as Hazardous Waste.

g. **Disposal or recycling.** Properly package and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.44 TRANSMISSION FLUID

a. **Identification.** Transmission fluid used in vehicles and equipment (e.g., oil engine, arctic).

b. **Classification**. Prior to use/storage: HAZARDOUS MATERIAL
When disposed: HAZARDOUS WASTE PENDING ANALYTICAL RESULTS
When recycled: NON-HAZARDOUS WASTE FOR ENERGY RECOVERY OR RECYCLING

c. **Pollution prevention**. None identified.

d. **Testing**. None identified.

e. **Packaging**. DOT-approved package.

f. **Special equipment**. None identified.

g. **Disposal or recycling**. Properly package, mark, and label waste. Call the PWE waste turn-in contractor to pick up and take containers to the collection point for off-site transportation and disposal.

5.45 WASTES, NON-ROUTINE

a. **Identification.** Any material or waste not identified in this section or the site-specific SOP.

Warning: Prior to attempting any management, cleanup, or disposal, contact PWE for information and requirements.

b. **Classification.** HAZARDOUS WASTE PENDING ANALYTICAL RESULTS

c. **Pollution prevention.** None identified.

d. **Testing.** Contact PWE for testing requirements immediately.

e. **Packaging.** Contact PWE for packaging requirements immediately.

f. **Special equipment.** Contact PWE for requirements immediately.

g. **Disposal or recycling.** Contact PWE for requirements immediately.

6.0 POLLUTION PREVENTION AND RECYCLING

This section discusses pollution prevention and hazardous materials/regulated waste reduction at USARAK facilities. Pollution prevention can be achieved through the following methods, listed in order of importance, with the preferred method first:

- **Reducing** hazardous materials and regulated waste generation by decreasing the quantities used or generated
- **Reusing** hazardous materials/regulated wastes, rather than disposing of them, which means finding uses for unwanted or used materials
- **Recycling** hazardous materials/regulated wastes, which involves processing previously used products that could not be otherwise reused

Further information on pollution prevention can be found in the Post Pollution Prevention Plan.

6.1 REDUCING HAZARDOUS MATERIALS/REGULATED WASTES

Methods of preventing pollution through reducing hazardous materials/regulated wastes include those listed below.

a. Reduce inventory by:

- Ordering only product amounts needed for a task and that can be used before the shelf life expires
- Using products whose shelf life is closest to expiring first (i.e., product rotation - FI/FO)

b. Modify processes or procedures by:

- Scheduling similar tasks together to reduce cleanup
- Minimizing hazardous material/regulated waste spills
- Stopping leaks in piping and hoses
- Maintaining and regularly adjusting equipment
- Using lids on solvent tanks to slow evaporation

c. Substitute products by:

- Using biodegradable solvents instead of chlorinated solvents (e.g., Citrikleen™ in place of perchloroethylene)
- Using fewer hazardous/regulated products and more non-hazardous products
- Using non-asbestos gaskets in place of asbestos gaskets, if possible
- Using recirculating hot water washers to clean parts, or clean parts mechanically, instead of using solvents

d. Improve hazardous materials/regulated waste management practices by:

- Spacing rows of drums appropriately to allow for easy transfer and inspection for damage or leaks
- Stacking containers according to manufacturer's instructions to reduce tipping, puncturing, or other damage
- Segregating materials and wastes to avoid cross-contamination, and facilitating materials exchange, recycling, or reclamation
- Storing containers on pallets to prevent corrosion, which can result from containers contacting concrete floors
- Adding containment berms to capture and contain leaks and spills

e. Improve training

6.2 REUSING HAZARDOUS MATERIALS/REGULATED WASTE

Methods of preventing pollution through reusing hazardous materials/regulated waste include:

- Returning unopened or unused products to supply or Department of Logistics (DOL) for reissue
- Using products available from other facilities
- Reusing slightly dirty solvents for less critical cleaning
- Using out-of-date products for non-specification projects rather than disposing of them

6.3 RECYCLING HAZARDOUS MATERIALS/REGULATED WASTE

Methods of preventing pollution through recycling hazardous materials/regulated waste include:

- Recycling antifreeze and other products on site using recycling equipment obtained through the DRMO
- Taking recyclable materials to the DRMO for recycling
- Filtering and reusing solvents

Note: Units/activities may not take products to be recycled to civilian recycling facilities; unit/activity recycling must be performed on post.

7.0 CHEMICAL COMPATIBILITY

Chemicals, including fuels, batteries, solvents, and cleaning fluids, are often incompatible with each other and, if allowed to mix, can result in:

- Fire
- Explosion
- Release of toxic fumes
- Sudden temperature changes
- Sudden changes in pressure

Never mix different chemicals together unless you are specifically instructed to do so. Read product labels and MSDSs and follow all prescribed precautions. Knowing how to properly use and dispose of chemicals is critical to your health, and the health of your co-workers and the environment.

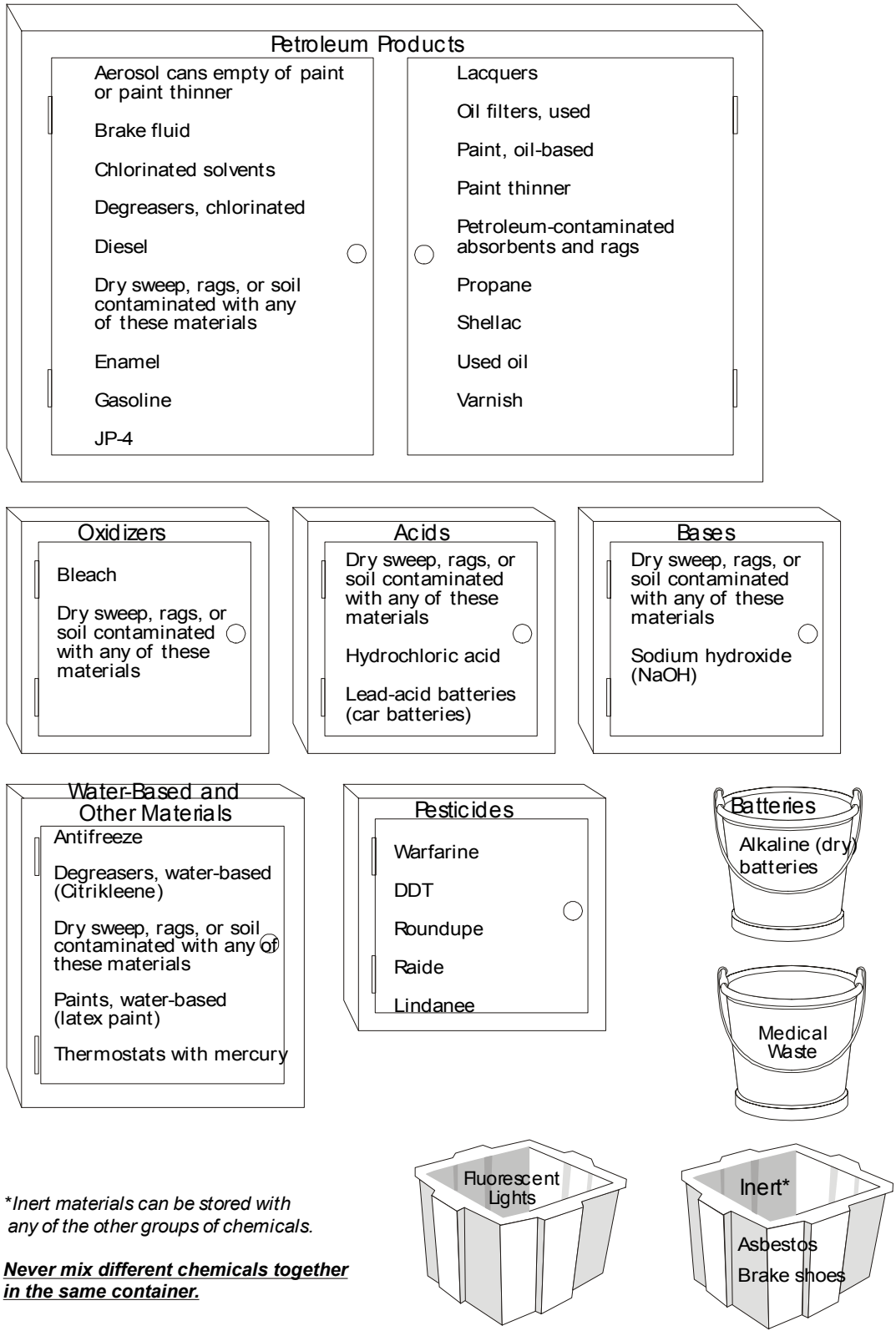
Chemicals can also be incompatible with certain containers and can result in container failure and spills. For example, acids such as battery acid, will corrode steel and aluminum, and fuels will dissolve plastic containers. When possible, use the original containers to store materials. If you need to use another container, refer to MSDSs or contact PWE for compatibility information.

Figure 7-1 lists chemicals that can be stored in adjacent containers. If hazardous materials/regulated waste are not shown in the same storage areas on Figure 7-1, do not store together. For further information, or to determine storage for an unlisted material, contact PWE.

Determining the interaction between chemicals requires knowing their physical and chemical attributes, such as whether they are oxidizing agents, reducing agents, acids, bases, or corrosive, flammable, and/or organic chemicals. Often chemicals will fit into several categories. This information is provided on the MSDSs or the waste profiles, along with known incompatibilities. If several chemicals are mixed together, new, unlisted reactions may take place.

Warning: Never mix different chemicals together in the same container.

Figure 7-1 Chemicals That Can Be Stored in Adjacent Containers



**Inert materials can be stored with any of the other groups of chemicals.*

Never mix different chemicals together in the same container.

8.0 PACKAGING

This section describes selecting, reusing, filling, and managing hazardous materials/regulated waste containers.

8.1 SELECTING A SUITABLE CONTAINER

A variety of containers, from 1-gallon to 110-gallon overpack drums, boxes, plastic totes, and bags, may be used to package hazardous materials/regulated waste.

Choice of container depends on the:

- Type of waste material
- Quantity of waste

For storing hazardous materials/regulated waste, containers must be:

a. **In good condition.** The container must not be leaking, rusted (i.e., more than minor surface rust), corroded, dented more than 2 inches, or have non-working filler caps/bungs and/or other sealing devices, any bulges, grooves (other than removed metal), dents in seams/corrugations, or be deteriorated in any other way. If a container leaks or is not in good condition, the contents must be transferred to another container that meets all standards, or be placed in an overpack. Any overpack must be filled with absorbent capable of soaking up liquid, as a precaution against leaks within the overpack.

b. **Made of a compatible material.** The container must be made of a material that will not react or deteriorate when in contact with the material or waste. For example, acids, such as battery acid, cannot be placed in a steel drum because acid will corrode the drum and cause it to leak.

c. **Securely closed.** All containers used to store hazardous materials/regulated waste (except trash) must have a cover or lid and must close and seal tightly enough to prevent spills, including release of fumes. Storing wastes in open buckets is not allowed. Containers must be tightly closed (more than finger tight) after every use. Special funnels that are designed not to leak if the container is overturned, and not to allow fumes to escape, are required if the funnel remains attached to the waste container. Open-head containers must not be used for any liquids, unless pre-approved by PWE.

d. **In compliance with DOT requirements.** All containers used to store hazardous materials or regulated waste on post must meet DOT-specified packaging requirements (Performance-Oriented Packaging). If a package has the symbol shown below on it, it is a DOT-approved package.

Followed by a series of numbers or letters

If in doubt about the suitability of any hazardous materials or regulated waste container, call PWE.

Drums that are 85-gallons or larger are overpack containers for leaking drums, and are not for general use.

8.2 REUSING CONTAINERS

Empty containers can be reused for storing waste, provided the material remaining in the container:

a. **Is compatible with the new waste material.** For example, used oil can be placed in a drum previously used for diesel fuel. However, it cannot be placed in a drum that previously contained sodium hydroxide or hydrochloric acid (see Section 7 for information on chemical compatabilities).

b. **Will not contaminate the waste.** For example, solvents will contaminate used oil such that it cannot be burned for energy recovery.

Disposal of empty containers is discussed in Section 5.

8.3 FILLING CONTAINERS

The key steps in filling containers are:

a. **Follow proper personal safety measures.** Always use proper PPE and safety equipment. This information is provided in the site-specific SOPs and MSDSs.

b. **Do not overfill containers.** Allow sufficient headspace for expansion of contents. Generally, a container is considered full when it is 97% filled (e.g., 3 to 4 inches from the top of a 55-gallon drum; 1 to 2 inches from the top of a 5-gallon container; 1-inch from the top of a 1-gallon can). The maximum allowable weight for an open-top drum is 400 kilograms (800 pounds).

c. **Avoid spills.** When filling containers with liquids, be careful to avoid spills. Place absorbent materials around or under a container prior to filling. Use funnels to transfer liquids. Watch the liquid level in the container carefully and do not leave containers unattended when filling (i.e., do not start a transfer pump and then leave the area).

d. **Clean up any spills immediately.** If spillage occurs, the spilled material must be cleaned up immediately and packaged for disposal (see Section 16 for spill information).

8.4 MANAGING CONTAINERS

All containers must be immediately marked and labeled (see Section 10) and placed in an approved storage area (see Section 9), where they must remain until pick-up for disposal.

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9.0 STORAGE AREAS

All of the various types of hazardous materials and regulated waste must be accumulated in segregated, strictly regulated storage areas.

9.1 TYPES OF HAZARDOUS MATERIALS AND REGULATED WASTE

Hazardous materials and regulated waste can be divided into the following five categories:

- **Hazardous materials**
- **Hazardous waste**
- **Non-hazardous waste**
    - Materials for burning for energy recovery, and recycling (e.g., used oil, waste fuel, oil-soaked pads, absorbents or rags)
    - Other non-hazardous wastes
- **Universal waste**
- **Trash** (non-hazardous)

9.2 TYPES OF STORAGE AREAS

Materials and waste have different storage requirements based on category. All hazardous materials and regulated waste must be stored in one of the following areas:

a. **Permitted Hazardous Waste Treatment Storage and Disposal Facility (TSDF).** Complex facilities individually permitted by the EPA. The ***only*** permitted TSDF on post is maintained by the PWE waste turn-in contractor. Units/activities are not allowed to create this type of storage area.

b. **Hazardous Materials Storage Area (HMSA).** Area where chemical products and other materials (such as batteries) that are being ***used*** on site are stored. An HMSA is ***not*** used for waste storage.

c. **Hazardous Waste Accumulation Area (HWAA).** Necessary when the quantity of stored waste exceeds ***55 gallons of hazardous waste,*** or ***1 quart of acutely hazardous waste,*** or when ***wastes are located outside the limits set for a Satellite Accumulation Area (SAA),*** described below. Quantities of waste stored at an HWAA are limited to 110 gallons (2- to 55-gallon drums) of any one kind of waste. Storage time is limited to 90 days at Fort Richardson and Fort Wainwright, and 180 days at Fort Greely.

d. **SAA.** Area for accumulating small quantities of hazardous waste **(*a maximum of 55 gallons of hazardous waste, or 1 quart of an acutely hazardous waste)*,** for short periods of time in the same room as the operator, at or near the work area, ***and under the control of the operator at all times.***

e. **Emergency Accumulation Area (EAA).** For ***one-time accumulation of wastes from non-routine situations***, such as a spill or construction activities. Hazardous waste storage must not exceed 90 days.

f. **Recycle, Reuse, Reclaim Accumulation Area (RRAA).** For ***storage of materials to be burned for energy recovery***, such as used oil or fuel-contaminated absorbent pads. There are no storage time limits or maximum quantities.

g. **Universal Waste Storage Areas (UWSA).** The EPA allows 1 year for disposal of ***universal wastes,*** but USARAK has established a policy that universal and hazardous wastes shall be disposed within 90 days from date of generation.

h. **Underground Storage Tanks (UST).** For storage of designated ***non-hazardous wastes,*** such as sewage.

i. **Aboveground Storage Tanks (AST).** For storage of large quantities of ***liquid materials***.

j. **Non-Hazardous Waste Storage Area (NHWSA).** For storage of ***non-hazardous wastes that do not fall into any other special categories***, such as rocks and building debris, fuel-contaminated water, or cooking grease.

k. **Dumpsters and Trash Cans.** For ***trash*** only.

Units/activities can create as many storage areas as desired at their sites. With the exception of SAAs, placing any of these storage areas next to each other and minimizing the number of areas makes management of hazardous materials/regulated waste easier. Non-hazardous waste may not be stored in an HMSA, HWAA, or SAA.

Table 9-1 shows which storage areas are allowed for each type of hazardous material/regulated waste. Hazardous materials, hazardous waste, universal waste, non-hazardous waste for recovery or recycling, and non-hazardous waste must each be stored in separate areas to prevent confusion. For example, if a unit/activity generates both hazardous and non-hazardous waste, the two wastes may not both be stored in the same SAA. Instead, the unit/activity must create two waste storage areas: an SAA for the hazardous waste and an NHWSA for the non-hazardous waste. The two areas may be adjacent to each other, but the boundaries of each must be clearly delineated and each must have a sign identifying the type of storage area. Similarly, flammable and non-flammable materials and wastes may not be stored in the same storage area, although they may be stored in adjacent storage areas.

As shown in Table 9-1, ***no hazardous materials/regulated waste may be poured down the sink or floor drains.***

Table 9-1
Allowable Storage Areas

Temporary Storage Area	Hazardous Materials (not wastes)	Hazardous Waste	Non-Hazardous Waste			Universal Waste	Trash
			Burned for Energy Recovery	For Recycling	For Disposal		
Permitted Treatment, Storage, and Disposal Facility (TSDF)	✔	✔	✔	✔	✔	✔	✔
Hazardous Materials Storage Area (HMSA)	✔						
Hazardous Waste Accumulation Area (HWAA)		✔					
Satellite Accumulation Area (SAA)		✔					
Emergency Accumulation Area (EAA)		✔					
Recycle, Reuse, Reclamation Accumulation Area (RRAA)			✔	✔			
Universal Waste Storage Area (UWSA)						✔	
Non-Hazardous Waste Storage Area (NHWSA)					✔		✔
Underground Storage Tank (UST)			✔	✔	✔		
Aboveground Storage Tank (AST)	✔	✔	✔	✔	✔	✔	
Dumpsters and Trash Cans							✔
Sink and Floor Drains	NEVER AN ACCEPTABLE PRACTICE						

Also, ***hazardous wastes are forbidden in:***

- USTs
- Dumpsters
- Trash cans
- Sinks
- Drains

9.3 HANDLING CONTAINERS IN STORAGE

When handling containers in storage:

- Do not place waste accumulation containers where they can be damaged by moving equipment/vehicles.

- Protect waste containers from chemical reaction or ignition sources such as open flames, smoking, cutting and welding, hot surfaces, friction, sparks, spontaneous ignition, and radiant heat.

- Do not stack or place waste accumulation containers (including boxes and batteries) where they can easily fall, be knocked over, or crush each other from excessive weight. Drums over 30 gallons in size must not be stacked.

9.4 SPECIAL REQUIREMENTS FOR SATELLITE ACCUMULATION AREAS

SAAs have the least stringent requirements for management and inspection. Constantly monitor SAAs to ensure they are meeting all SAA requirements. Otherwise, they must be designated as HWAAs and meet more stringent requirements (described in later sections).

SAAs are for accumulating small quantities of waste, a ***maximum of 55 gallons of hazardous waste, or 1 quart of an acutely hazardous waste***, for short periods of time. They must be located in the same room as the operator, at or near the work area, ***and be under the control of the operator at all times.***

Note: If waste is transported through a doorway to the storage container, the waste area does NOT qualify as an SAA.

Wastes must be immediately moved directly to an SAA after being generated. Collecting waste until the end of the day by the door would disqualify an area as an SAA.

SAAs ***must be locked*** in a room, cabinet, or storage locker ***or secured*** by locking devices on the containers themselves at all times.

Multiple containers and multiple hazardous wastes can be stored in an SAA, as long as the ***volume does not exceed a maximum of 55 gallons of hazardous waste, or 1 quart of an acutely hazardous waste.***

There is no limit to the number of SAAs at a location and no minimum separation distance requirement between two separate SAAs, as long as ***the wastes are compatible and each SAA is clearly identified and delineated.***

When handling containers in SAAs:

a. Do not place waste accumulation containers where they can be damaged by moving equipment/vehicles.

b. Protect waste containers from chemical reaction or ignition sources such as open flames, smoking, cutting and welding, hot surfaces, friction, sparks, spontaneous ignition, and radiant heat.

c. Do not stack or place waste accumulation containers (including boxes and batteries) where they can easily fall, be knocked over, or crush each other from excessive weight. Drums over 30 gallons in size must not be stacked.

9.5 SPECIFIC REQUIREMENTS FOR ALL STORAGE AREAS

All temporary storage areas have specific requirements for:

- Siting
- Setup
- Quantity limitations
- Storage time limitations
- Operations and maintenance
- Plans, records, and inspections
- Flammable and combustible storage

The seven sets of specific storage requirements listed above are addressed in detail in the following seven sections. In each section, text defines individual requirements, and tables show which requirements must be met for each type of temporary storage area.

Note: ***To comply with AR 200-1, all applicable requirements must be met for each type of storage area***. For example, when determining compliance for SAAs, you must refer to each of the seven tables to learn if all requirements have been met.

9.6 SITING REQUIREMENTS FOR STORAGE AREAS

a. **Approval by the PWE, Safety Office, and Fire Department.** The Hazardous Materials Manager or Hazardous Waste Manager must obtain the approval of the PWE, Safety Office, and Fire Department to site a temporary storage area.

b. **Structurally sound and well-maintained.** The temporary storage area must be located in a building or area that is structurally sound and well-maintained.

c. **Impervious floor.** The temporary storage area must have an impervious floor made of such materials as concrete or asphalt. Alternatively, storage may be staged on a polyethylene sheet at least 10-mils thick, provided that polyethylene is impervious to the stored materials.

d. **Differentiated from other shop activities.** The temporary storage area must be distinguished and separated from other activities in the facility. For example, it may be a storage locker, separate room, or an area delineated with lines painted on the floor, or with ropes or fencing.

e. **Prevents snow, ice, and rain accumulation.** The temporary storage area must have provisions for preventing snow, ice, and rain accumulation on containers, including container bottoms. Protection could be provided by storing inside a building or storage locker, covering the containers, or other method.

f. **Near the process that generates the waste.** SAAs must be located near the work area and under the control of the operator at all times. Wastes must be immediately moved directly to an SAA after being generated. Collecting waste until the end of the day by the door would disqualify an area as an SAA.

g. **SAAs must be locked in a room, cabinet, storage locker, or secured with locking devices on the containers themselves at all times.**

h. **Material/waste not accessible to the public.** Hazardous materials/regulated waste must be secure from the public and trespassers. Locks must be placed on all refueling valves. Areas must be secured by locks, fencing or other means.

i. **Reactives and flammables over 50 feet from the property boundary.** Storage areas containing flammables or reactives must be located over 50 feet from the property boundary. The 50-foot setback refers to the storage area itself and the location of the stored reactive and flammable wastes.

See Table 9-2 for siting requirements applicable to each temporary storage area.

9.7 SETUP REQUIREMENTS FOR STORAGE AREAS

a. **PWE-approved sign.** A PWE-approved sign (Appendix A) indicating the type of storage area, must be posted at the storage area and visible and easy to read from all approaches.

b. **Telephone and emergency/spill response contact list.** A working telephone or other communication equipment and the emergency contact list must be located within view of storage area.

Table 9-2
Siting Requirements for Storage Areas

Requirement	HMSA	HWAA	SAA	EAA	RRAA	UWSA	NHWSA	Dumpsters and Trash Cans
Approval by PWE, Safety Office, and Fire Department	✔	✔	✔		✔			
Structurally sound and well-maintained	✔	✔	✔	✔	✔	✔	✔	
Impervious floor	✔	✔		✔	✔	✔	✔	
Differentiated from other facility activities	✔	✔	✔	✔	✔	✔	✔	
Prevents snow, ice, and rain accumulation on containers	✔	✔	✔	✔	✔	✔	✔	
Near process that generates the waste			✔					
Locked or secured			✔					
Not accessible to the public	✔	✔	✔	✔	✔	✔	✔	
Reactives and flammables over 50 feet from the property boundary	✔	✔	✔	✔	✔	✔		

Note: ***To comply with Army Regulation 200-1, all applicable requirements must be met for each type of storage area.*** For example, when determining compliance for SAAs, you must refer to each of Tables 9-2 through 9-8 to learn if all requirements for SAAs have been met.

EAA - Emergency Accumulation Area
HMSA - Hazardous Materials Storage Area
HWAA - Hazardous Waste Accumulation Area
NHWSA - Non-Hazardous Waste Storage Area
PWE - Directorate of Public Works, Environmental Resources Office
RRAA - Recycle, Reuse, Reclaim Accumulation Area
SAA - Satellite Accumulation Area
UWSA - Universal Waste Storage Area

c. **Emergency alarm system.** An emergency alarm system must be operational at each unit/activity.

d. **Fire extinguishers.** The Hazardous Materials Manager or Hazardous Waste Manager must contact the Fire Department to establish the number of required fire extinguishers for the unit/activity, and their placement. A charged fire extinguisher must be located within 10 feet of flammable or combustible materials.

e. **Site-specific spill response equipment.** The Hazardous Material Manager or Hazardous Waste Manager must ensure that the site-specific spill response equipment listed in the SOP is stored at the unit/activity.

f. **Secondary containment for liquids.** Secondary containment, capable of containing 110% of the volume of the container, must be provided for all storage containers with liquid contents. If more than one container of liquid is placed within the secondary containment, the secondary containment must still be capable of containing at least 110% of the total volume of liquid. The primary and secondary containers must be protected from precipitation and rainwater/snow melt run-on/run-off.

g. **Access to containers.** Authorized personnel and emergency equipment must have access to the containers and be able to read the container labels. Rows will be no more than 2 containers wide, with a minimum of 3 feet between rows. Aisles must allow for easy inspection of all containers for damage, leaks and spills, labels, and unobstructed movement of emergency equipment.

h. **Stacking restrictions.** Stack containers only to the extent that it is safe. Follow stacking requirements of package/container vendor. Stack drums no more than two high.

See Table 9-3 for setup requirements applicable to each temporary storage area.

9.8 QUANTITY LIMITATIONS

a. **Less than 110 gallons of any one waste.** Maximum quantity of any one waste is limited to 110 gallons (two 55-gallon drums) in an HWSA or RRAA.

b. **Less than 55 gallons of all hazardous wastes combined.** Maximum quantity of all hazardous wastes combined in an SAA is limited to 55 gallons. (An SAA, by definition, only contains hazardous waste.)

c. **Less than 1 quart of acute hazardous waste and no other hazardous wastes.** Maximum quantity of acute **hazardous waste** is limited to 1 quart. If acute hazardous waste is stored, no other waste may be present in an SAA.

See Table 9-4 for quantity limits requirements applicable to each storage area.

Table 9-3
Setup Requirements for Storage Areas

Requirement	HMSA	HWAA	SAA	EAA	RRAA	UWSA	NHWSA	Dumpsters and Trash Cans
PWE-approved sign	✔	✔	✔	✔	✔	✔	✔	
Telephone and emergency/spill response contact list	✔	✔	✔		✔	✔		
Emergency alarm system	✔	✔	✔		✔			
Fire extinguishers	✔	✔	✔	✔	✔			
Site-specific spill response equipment	✔	✔	✔	✔	✔	✔		
Secondary containment for liquids	✔	✔	✔	✔	✔			
Access to containers	✔	✔	✔	✔	✔	✔	✔	
Stacking restrictions	✔	✔		✔	✔	✔		

Note: ***To comply with Army Regulation 200-1, all applicable requirements must be met for each type of storage area.*** For example, when determining compliance for SAAs, you must refer to Tables 9-2 through 9-8 to learn if all requirements for SAAs have been met.

EAA - Emergency Accumulation Area
HMSA - Hazardous Materials Storage Area
HWAA - Hazardous Waste Accumulation Area
NHWSA - Non-Hazardous Waste Storage Area
PWE - Directorate of Public Works, Environmental Resources Office
RRAA - Recycle, Reuse, Reclaim Accumulation Area
SAA - Satellite Accumulation Area
UWSA - Universal Waste Storage Area

Table 9-4
Quantity Limitation Requirements for Storage Areas

Requirement	HMSA	HWAA	SAA	EAA	RRAA	UWSA	NHWSA	Dumpsters and Trash Cans
Less than 110 gallons of any one waste		✔			✔			
Less than 55 gallons of all hazardous wastes combined			✔					
Less than 1 quart of acute hazardous waste and no other hazardous wastes can be stored in SAAs			✔					

Note: ***To comply with Army Regulation 200-1, all applicable requirements must be met for each type of storage area.*** For example, when determining compliance for SAAs, you must refer to each of Tables 9-2 through 9-8 to learn if all requirements for SAAs have been met.

EAA - Emergency Accumulation Area
HMSA - Hazardous Materials Storage Area
HWAA - Hazardous Waste Accumulation Area
NHWSA - Non-Hazardous Waste Storage Area
RRAA - Recycle, Reuse, Reclaim Accumulation Area
SAA - Satellite Accumulation Area
UWSA - Universal Waste Storage Area

9.9 STORAGE TIME LIMITS REQUIREMENTS FOR STORAGE AREAS

a. **Full container time limit.** Containers must be moved out of an SAA within three days of being completely filled. If additional wastes are generated, then containers may need to be moved out faster to meet quantity limitations.

b. **Hazardous waste time limit.** Hazardous waste must be moved out of storage in less than 90 days (180 days for Fort Greely) from the start date written on the container.

c. **Universal waste time limit.** Universal wastes must be moved out of storage in less than one year.

See Table 9-5 for storage time limit requirements applicable to each storage area.

9.10 OPERATIONS AND MAINTENANCE FOR STORAGE AREAS

a. **Segregation of incompatible wastes.** Containers of incompatible waste must not be stored together. Identification of incompatible wastes and segregation requirements identified in Section 7 must be followed.

b. **Operational fire extinguishers**. The Hazardous Materials Manager, Hazardous Waste Manager, or their designees must ensure that all fire extinguishers are charged and operational.

c. **Ventilation.** Adequate venting and ventilation must be provided for all storage areas that store flammable or combustible materials. Flammable storage cabinet doors must be kept closed to ensure proper venting and ventilation. Vents must be maintained free of obstructions.

d. **On-site wastes only.** Storage of wastes from other sites (e.g., a unit/activity that does not have its own storage area) or residences (e.g., used oil from personal cars) is prohibited.

e. **Labels on all containers**. The Hazardous Materials Manager, Hazardous Waste Manager, or their designees must ensure that each container is labeled with a legible, completed label, in accordance with Section 10.

f. **Material/waste compatible with container.** The Hazardous Materials Manager, Hazardous Waste Manager, or their designees must ensure that containers are compatible with the materials contained, using the procedures described in Section 7 and any other pertinent information.

g. **All containers closed.** The Hazardous Materials Manager, Hazardous Waste Manager, or their designees must ensure that containers are closed. Drum bungs must be tightened more than finger tight. If a funnel is attached to the top of a drum to periodically add waste to the container, it must be a funnel that shuts automatically if the drum turns over.

Table 9-5
Storage Time Limitations Requirements for Storage Areas

Requirement	HMSA	HWAA	SAA	EAA	RRAA	UWSA	NHWSA	Dumpsters and Trash Cans
Full containers must be moved out of SAA in less than 3 days			✔					
Hazardous waste must be out of temporary storage in less than 90 days (180 days for Fort Greely) from the start date written on the container		✔		✔				
Universal wastes must be moved out of temporary storage in less than 1 year				✔		✔		

Note: ***To comply with Army Regulation 200-1, all applicable requirements must be met for each type of storage area.*** For example, when determining compliance for SAAs, you must refer to each of Tables 9-2 through 9-8 to learn if all requirements for SAAs have been met.

EAA - Emergency Accumulation Area
HMSA - Hazardous Materials Storage Area
HWAA - Hazardous Waste Accumulation Area
NHWSA - Non-Hazardous Waste Storage Area
RRAA - Recycle, Reuse, Reclaim Accumulation Area
SAA - Satellite Accumulation Area
UWSA - Universal Waste Storage Area

h. **All containers in good condition.** The Hazardous Materials Manager, Hazardous Waste Manager, or their designees must ensure that all containers in the storage area meet the packaging requirements described in Section 8.

i. **Good housekeeping.** The Hazardous Materials Manager, Hazardous Waste Manager, or their designees must ensure that the storage area is neat and clean. It must be free from weeds, trash, and clutter, and from flammable and combustible debris.

j. **Respond to spills and releases.** The Hazardous Materials Manager, Hazardous Waste Manager, or their designees must ensure that spills are noticed and promptly responded to in accordance with requirements described in Section 16.

See Table 9-6 for operations and maintenance requirements applicable to each storage area.

9.11 PLANS, RECORDS AND INSPECTIONS REQUIREMENTS FOR STORAGE AREAS

a. **Container log.** Each person adding waste to a container, or adding containers to a storage area, must enter the transfer on a Container Log. Logs must be completed using the procedures and forms described in Section 13. The log is intended to document the contents of each container and storage area. Current container logs must be posted at the hazardous waste collection point (drum or other container). All completed container logs shall be filed at Tab J of the Environmental Notebook.

b. **Storage area weekly inspections.** The Hazardous Materials Manager, Hazardous Waste Manager, or their designees must inspect each storage area every week using the procedures and forms described in Section 13. The inspection is intended to ensure that all regulated wastes:

- Are properly marked and labeled
- Have not spilled, leaked, or undergone other mishaps
- Are picked up for disposal in a timely manner

c. **Emergency/spill response equipment annual inspections.** The Fire Department must inspect emergency equipment at the unit/activity annually using the procedures and forms described in Section 13. The inspection is intended to ensure that:

- Sufficient emergency/spill response equipment is located at the site
- Emergency/spill response equipment is operational
- The Fire Department is familiar with the unit/activity prior to an emergency

d. **Storage area identified on emergency/spill facility floor map.** The Hazardous Materials Manager, Hazardous Waste Manager, or their designees must document the location of all storage areas on the Emergency/Spill Facility Floor Plan using the procedures and forms described in Section 13. The map is intended to ensure that the location of hazardous materials/regulated waste is available to the Fire Department and other emergency/spill response personnel.

Table 9-6
Operations and Maintenance Requirements for Storage Areas

Requirement	HMSA	HWAA	SAA	EAA	RRAA	UWSA	NHWSA	Dumpsters and Trash Cans
Segregation of incompatible wastes	✔	✔	✔	✔	✔	✔	✔	
Operational fire extinguishers	✔	✔	✔	✔	✔	✔	✔	
Ventilation	✔	✔	✔	✔	✔	✔	✔	
On-site wastes only	✔	✔	✔	✔	✔	✔		
Labels on all containers	✔	✔	✔	✔	✔	✔	✔	
Material/waste compatible with container	✔	✔	✔	✔	✔	✔	✔	✔
All containers closed	✔	✔	✔	✔	✔	✔		
All containers in good condition	✔	✔	✔	✔	✔	✔	✔	
Good housekeeping	✔	✔	✔	✔	✔	✔	✔	✔
Respond to spills and releases	✔	✔	✔	✔	✔	✔	✔	✔

Note: ***To comply with Army Regulation 200-1, all applicable requirements must be met for each type of storage area.*** For example, when determining compliance for SAAs, you must refer to each of Tables 9-2 through 9-8 to learn if all requirements for SAAs have been met.

EAA - Emergency Accumulation Area
HMSA - Hazardous Materials Storage Area
HWAA - Hazardous Waste Accumulation Area
NHWSA - Non-Hazardous Waste Storage Area
RRAA - Recycle, Reuse, Reclaim Accumulation Area
SAA - Satellite Accumulation Area
UWSA - Universal Waste Storage Area

e. **Site-specific hazardous materials/regulated waste SOP**. The Hazardous Materials Manager, Hazardous Waste Manager, or their designees must document site-specific hazardous materials/regulated waste information using the procedures and forms described in Section 4. The SOP is intended to ensure that all pertinent information on hazardous materials/regulated waste is available to all personnel involved with hazardous materials/regulated waste.

See Table 9-7 for plans, records, and inspection requirements applicable to each temporary storage area.

9.12 SPECIAL REQUIREMENTS FOR FLAMMABLE AND COMBUSTIBLE STORAGE

a. **Stored in closed, metal containers.** Flammable and combustible materials must be stored in metal containers.

b. **Not stored near heat or flame.** The Hazardous Materials Manager, Hazardous Waste Manager, or their designees must ensure that flammable or combustible materials and wastes are not stored near a heat, flame, or ignition source.

c. **Approved flammable storage facility.** Flammable storage cabinets or flammable storage rooms are required. Flammable materials storage room design requirements include: 4-inch high, non-combustible, liquid-tight raised sills or ramps, or a flammable storage room floor 4 inches below the surrounding floor; liquid-tight joints between floor and walls; self-closing fire doors; a gravity or mechanical exhaust ventilation system; ventilation and lighting operated with the same switch; switch must be located outside the entry door to the room; fire extinguisher must be located within 10 feet of entry door; in offices, no doors between the flammable storage room must open directly into public use areas; and storage cabinets must be installed per vendor instructions.

d. **Non-flammable materials storage.** Non-flammable materials must ***not*** be stored in cabinets with flammable materials/regulated wastes.

e. **Quantity of flammable and combustible materials limited.** The Fire Department may restrict the quantity of flammable and combustible material in a site storage area. Additionally, the quantity stored in flammable storage cabinets is limited to the rated capacity provided by the vendor. Regardless of the vendor rating, more than 60 gallons of flammables or 120 gallons of combustibles may not be stored in a flammable storage cabinet.

f. **Separation distances.** Flammable and combustible materials must not be stored near heat or flames. A temporary storage area must be over 50 feet from any ignition source, including a break room that allows smoking. Outside storage areas for flammables and combustibles must be over 50 feet from any structure. The minimum separation required between two tanks is 3 feet or 1/6 the sum of their diameters, whichever is greater. Flammables must be stored over 50 feet from the property boundary.

Table 9-7
Plans, Records, and Inspections Requirements for Storage Areas

Requirement	HMSA	HWAA	SAA	EAA	RRAA	UWSA	NHWSA	Dumpsters and Trash Cans
Container log	✔	✔	✔	✔	✔	✔	✔	
Storage area weekly inspections	✔	✔		✔	✔	✔	✔	
Emergency/spill response equipment annual inspections	✔	✔	✔		✔	✔		
Storage area identified on emergency/spill facility floor map	✔	✔	✔		✔	✔	✔	
Site-specific hazardous materials/regulated waste standard operating procedures	✔	✔	✔		✔	✔	✔	

Note: ***To comply with Army Regulation 200-1, all applicable requirements must be met for each type of storage area.*** For example, when determining compliance for SAAs, you must refer to each of Tables 9-2 through 9-8 to learn if all requirements for SAAs have been met.

EAA - Emergency Accumulation Area
HMSA - Hazardous Materials Storage Area
HWAA - Hazardous Waste Accumulation Area
NHWSA - Non-Hazardous Waste Storage Area
RRAA - Recycle, Reuse, Reclaim Accumulation Area
SAA - Satellite Accumulation Area
UWSA - Universal Waste Storage Area

g. **Stacking limitations.** Containers over 30 gallons shall not be stacked, except in warehouses. In warehouses, stacks must be separated by non-combustible pallets or other padding material to ensure stability and integrity.

h. **Spill containment.** In addition to secondary containment requirements, outside storage areas used to store flammables and combustibles must be graded to collect spilled material in one location. A 6-inch curb must surround the container storage area as a secondary containment measure.

i. **Fire Department approval posted.** A hazardous materials/regulated waste storage area used to store flammable or combustible materials must be approved by the Fire Department, and the approval must be posted at the storage area.

j. **Grounding.** Drums and tanks of flammable materials must be electrically grounded.

See Table 9-8 for special requirements for flammable and combustible materials that are applicable to each storage area.

Table 9-8
Special Requirements for Flammable and Combustible Materials Storage

Requirement	HMSA	HWAA	SAA	EAA	RRAA	UWSA	NHWSA	Dumpsters and Trash Cans
Stored in closed, metal containers	✔	✔	✔	✔	✔			
Not stored near heat or flames	✔	✔	✔	✔	✔			
Approved flammable storage facility	✔	✔	✔	✔	✔			
Non-flammable materials must not be stored with flammables	✔	✔		✔	✔			
Quantity of flammable and combustible materials limited	✔	✔	✔	✔	✔			
Separation distances	✔	✔		✔	✔			✔
Stacking limitations	✔	✔		✔	✔			
Spill containment equipment	✔	✔		✔	✔			
Fire Department approval posted	✔	✔			✔			✔
Grounding of tanks and drums	✔	✔	✔	✔	✔	✔	✔	

Note 1: Disposal of flammable materials and wastes is not allowed in NHWSA, dumpsters, and trash cans.

Note 2: ***To comply with Army Regulation 200-1, all applicable requirements must be met for each type of storage area.*** For example, when determining compliance for SAAs, you must refer to each of Tables 9-2 through 9-8 to learn if all requirements for SAAs have been met.

EAA - Emergency Accumulation Area
HMSA - Hazardous Materials Storage Area
HWAA - Hazardous Waste Accumulation Area
NHWSA - Non-Hazardous Waste Storage Area
RRAA - Recycle, Reuse, Reclaim Accumulation Area
SAA - Satellite Accumulation Area
UWSA - Universal Waste Storage Area

10.0 LABELING AND MARKING

Hazardous materials and regulated waste ***must be properly labeled and correctly marked at all times. This is necessary so that everyone who works with these materials is aware of hazards and the need for managing hazardous materials and regulated waste in a safe manner to prevent harm to people or damage to property or the environment.***

In this section, the following definitions apply:

Labeling: Refers to the addition of prepared, printed, usually self-adhesive, tags, stickers, placards, or tickets to containers or packages. Includes all such hazard class or descriptive labels required by DOT (49 CFR 171-180) and EPA (40 CFR 260-299) regulations and others such as "bar code labels," etc.

Marking: Refers to the addition of descriptive names, document/requisition numbers, contract line item numbers, gross/net weight numbers, hazardous waste generator unit/activity contact names and phone numbers, descriptive remarks, special instructions, addresses, building number, unit name/number, and similar types of information usually applied by hand using paint, indelible markers, stencils, and so forth. Marking is usually performed onsite by the responsible unit hazardous waste contact persons.

10.1 LABELING AND MARKING HAZARDOUS MATERIALS IN USE

All manufacturers' labeling must be kept on hazardous materials. Small amounts of hazardous materials transferred to another container must be marked with the product name and hazard identifiers ("flammable," "corrosive," etc., as appropriate).

10.2 LABELING AND MARKING REGULATED WASTES IN STORAGE AND FOR TURN-IN

Each waste in temporary storage will fall into one of the following categories:

- Hazardous waste
- Hazardous waste pending analytical results
- Non-hazardous waste for energy recovery or recycling
- Universal waste
- Non-hazardous waste

Section 5 provides a list of common wastes and classifies each one according to one of these categories: Hazardous Waste, Non-Hazardous Waste for Energy Recovery, Universal Waste, or Non-Hazardous Waste.

In rare instances, a container of unknown, unlabeled, unmarked, and unwanted material (see *Section 5.45*) must be characterized and disposed. Contact PWE to arrange proper waste characterization. Prior to receiving test results, this waste falls into the category "Hazardous Waste Pending Analytical Results."

Figure 10-1 illustrates container labeling and marking requirements. Regulated waste ***must*** have:

- One of the following completed labels:
  - **HAZARDOUS WASTE**
  - **HAZARDOUS WASTE PENDING ANALYTICAL RESULTS**
  - **NON-HAZARDOUS WASTE FOR ENERGY RECOVERY OR RECYCLING**
  - **UNIVERSAL WASTE**
  - **NON-HAZARDOUS WASTE**
- DOT flammable label (Figure 10-2), if it is a flammable liquid
- Bar code
- Package orientation label (Figure 10-3) (i.e., arrows showing "up" direction)
- Appropriate container markings as specified in Figure 10-1 or in unit SOP.

All information shown on Figure 10-1 must be completed as soon as one drop of waste is added to the container. There is only one exception: the start date on a container in an SAA is completed when the last drop of waste is added to the container, or when the container is prepared for transport out of the SAA.

Figure 10-1 Container Labeling

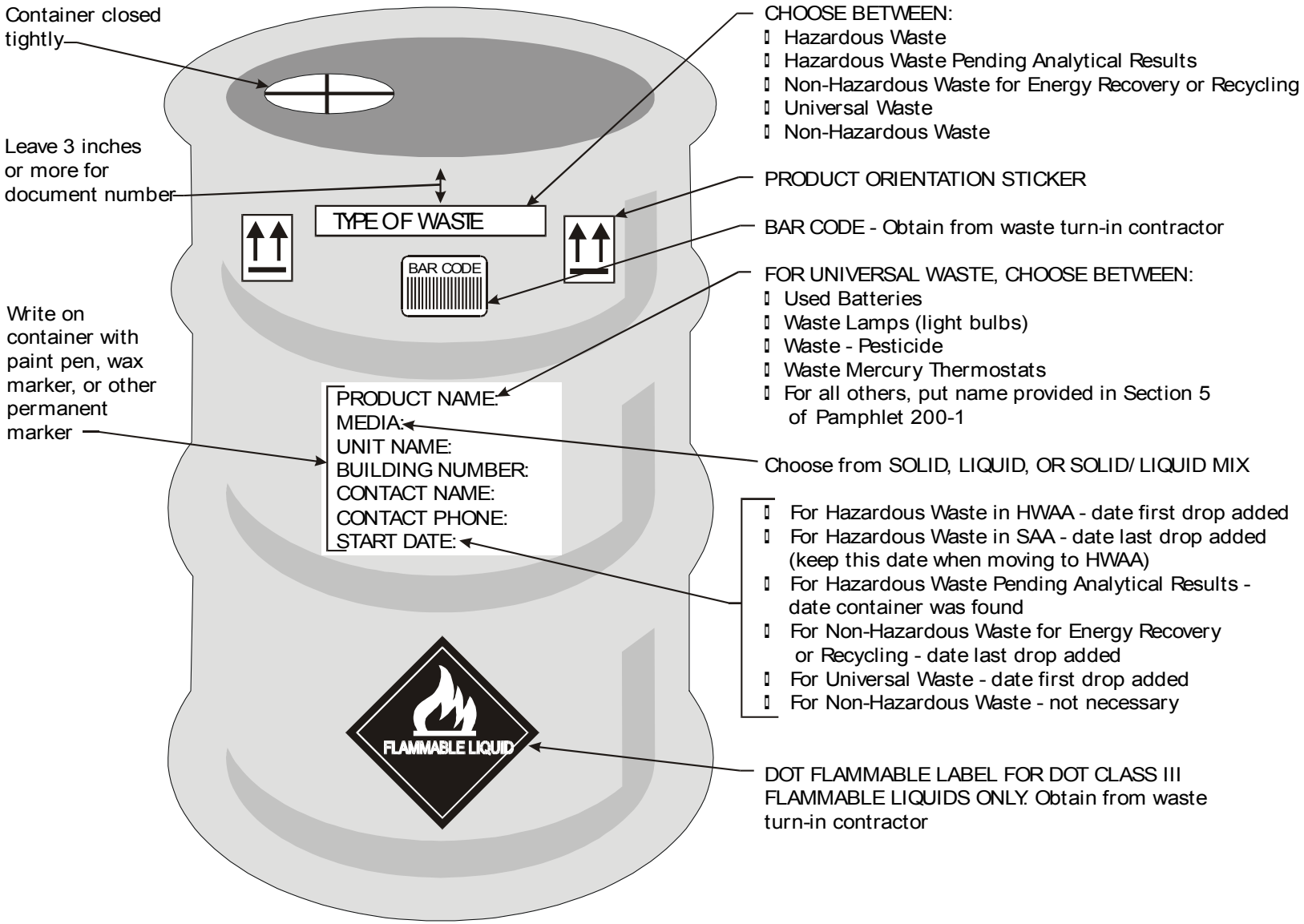
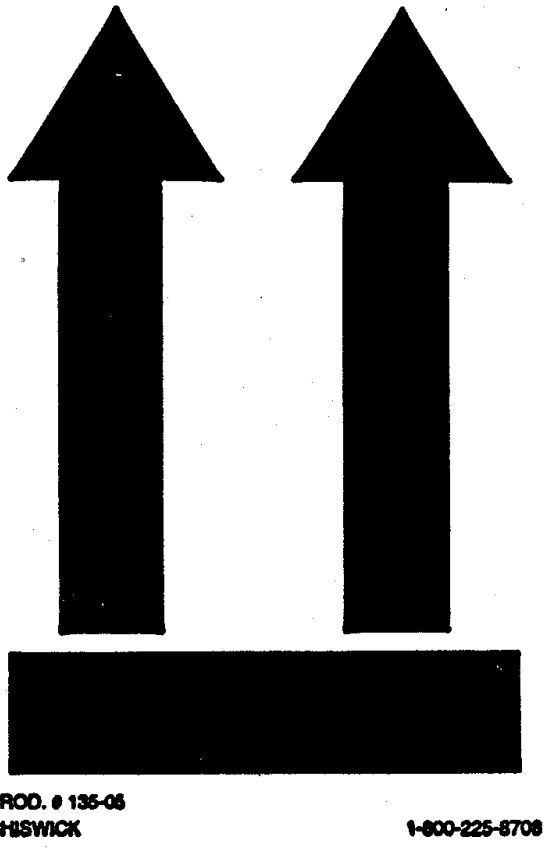


Figure 10-2 DOT Flammable Label

Figure 10-3 Package Orientation Label



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11.0 CONTACTS/RESPONSIBILITIES IN TRANSPORTATION/DISPOSAL

This section discusses who transports hazardous material/regulated waste, how hazardous materials/regulated wastes are prepared for transport, and the types of transport allowed.

11.1 TRANSPORT AND DISPOSAL OF HAZARDOUS MATERIALS/REGULATED WASTE BY PWE WASTE TURN-IN CONTRACTOR

On post, all wastes are picked up by the PWE waste turn-in contractor for redirection or transport and disposal off-site. The unit/activity prepares waste for on-post transport by placing it into proper containers, labeling them, and arranging for pick-up by the PWE waste turn-in contractor. The PWE waste turn-in contractor prepares the waste for redirection on post, or transport and disposal off-site, by performing further sampling and analysis, packaging, labeling, marking, and detailed record-keeping.

11.2 PREPARATION FOR TRANSPORT AND DISPOSAL

The activity/unit must:

- Place wastes in an acceptable, undamaged container for on-post transport and disposal
- Label the container

Section 8 describes unit/activity responsibilities for waste containerization; Section 10 describes unit/activity responsibility for marking and labeling requirements. ***The PWE waste turn-in contractor cannot accept non-containerized waste or waste in damaged containers.***

The following information must be provided to the PWE waste turn-in contractor when waste is delivered:

- **MSDS** for unused, out-of-date, off-specification, or unwanted materials or spilled materials
- **Waste profile sheet** or other information on waste identity
- **Completed container log** (a sample container log is provided in Appendix B)

11.3 TYPES OF TRANSPORT

Three types of hazardous materials and/or regulated waste transport are allowed:

a. **On-post transportation.** Hazardous materials/regulated waste must be transported to and from locations within the installation by properly licensed PWE or DRMO drivers.

b. **Field transport from an off-post location for disposal.** PWE must be notified prior to transport of hazardous materials/regulated wastes from an off-post location. PWE will ensure that all hazardous materials/regulated waste comply with all federal, state, and local laws and regulations, including those for packaging, marking, labeling, placarding, and manifesting. Transport on public roads must be performed

by a certified hazardous materials and/or regulated waste transporter, or military personnel with an OF 346 license endorsement. Packaging, labeling, marking, and placarding requirements for transport by public road are more stringent than those identified in this regulation.

c. **Off-site transportation**. Units/activities must not transport any hazardous materials and/or regulated waste off-site without the written permission of PWE; instead, transport must be performed by an authorized, licensed, and registered hazardous materials/regulated waste transporter.

12.0 INSPECTIONS

Inspections and reviews of unit/activity hazardous materials/regulated waste management practices must be performed to ensure compliance with AR 200-1 and other applicable laws.

12.1 PWE COMPLIANCE INSPECTIONS

PWE will perform inspections for compliance with this regulation. These inspections must be:

- Documented in writing
- Performed on a regular, recurring basis
- Performed in person (not telephonically)
- Standardized

A Notice of Environmental Violation (NEV) may be issued for any violations (an example NEV form is provided in Appendix B). Organizations must promptly correct any deficiencies, which, in many cases, can be done while the inspection is being performed. ***Non-compliance or no corrective action can result in severe penalties.***

12.2 COURTESY INSPECTIONS

Courtesy inspections by PWE are available on request by units/activities seeking assistance in complying with this regulation. These inspections will not result in NEVs unless, upon reinspection, any violations have not been corrected. Inspections can be requested for a specific area or for the whole unit/activity.

12.3 REQUIRED INSPECTIONS AND ENVIRONMENTAL REVIEWS

Units/activities are required to perform PWE compliance inspections and other inspections and environmental reviews on a routine basis, as summarized in Table 12-1. Inspections/reviews must address all items and be documented on the forms provided (see Appendix B) or comparable forms.

Table 12-1
Summary of Required Inspections

Inspection or Review	Frequency	Inspected by	Inspection or Review Forms/Submittals
Pollution Prevention Inventory and Review	Prepare initial inventory of pollution sources. Revise upon startup of new process or modification to an existing one	Unit Commander/ Activity Supervisor	Pollution Prevention Inventory and Review
Hazardous Materials/ Regulated Waste Storage Areas	Weekly	Hazardous Materials Manager	Temporary Storage Area Inspection Log
Hazardous Materials/ Regulated Waste Management	Four times per year	PWE	Environmental Compliance Inspection Checklist
Emergency Response Drill/Review	Four times per year	Hazardous Materials or Hazardous Waste Manager	Emergency Response Drill/Review Record
Inspection Against Hazardous Materials and Wastes Hoarding and Mismanagement	Twice per year	Unit Commander/ Activity Supervisor	Environmental Compliance Inspection Checklist
Emergency Response Equipment	Once per year	Fire Department	Emergency Response Equipment Inspection

PWE - Directorate of Public Works, Environment Resources Office

13.0 REPORTS AND RECORDS

All unit/activity personnel (including tenants, consultants, contractors, and subcontractors) involved in hazardous materials/regulated waste management are required to submit various records and reports to PWE and to maintain them in designated locations for specific lengths of time. Table 13-1 lists AR 200-1 hazardous materials/regulated waste record keeping requirements.

Table 13-1
Unit/Activity Record Keeping Requirements

Report /Record	Record Location	Frequency	Submittal Requirements	Records Retention
Hazardous Waste Staffing Report	Environmental Notebook (Tab E)	Each change in staffing	Submit to PWE when changes occur	5 years
Personnel Training Record	Environmental Notebook (Tab F)	Prepare for each new employee. Update with new training.	None	5 years
Hazardous Materials/Regulated Waste Inventory Log	Environmental Notebook (Tab G)	Person receiving or transferring hazardous material/regulated waste must record immediately	Hazardous Materials Manager/Hazardous Waste Manager submit quarterly to PWE	3 years
Pollution Prevention Inventory and Review	Environmental Notebook (Tab H) and PWE files	Initial and when new hazardous material/regulated waste is used	None	5 years
Hazardous Materials/Regulated Waste Reduction Log	Environmental Notebook (Tab I)	Hazardous Materials/ Hazardous Waste Manager documents when reduction is achieved	Submit annually to PWE with Hazardous Material Usage and Pollution Prevention/Waste Reduction Report	3 years
Container Log	Prior to completion of the log, keep in the temporary storage area. After completion, file completed form in the Environmental Notebook (Tab J)	Log activities immediately	None	5 years
Hazardous Waste Storage Area Inspection Record	Environmental Notebook (Tab K)	Weekly inspection by Hazardous Waste Managers	None	5 years

Table 13-1 (continued)
Unit/Activity Record Keeping Requirements

Report /Record	Record Location	Frequency	Submittal Requirements	Records Retention
Emergency Contact List	Environmental Notebook Posted near each phone in the hazardous materials/regulated waste areas (Tab L)	When contacts change	Submit to PWE when changes occur Remove old lists and replace with revised lists	None
Emergency Response Drill Record	Environmental Notebook (Tab M)	Quarterly	None	5 years
Emergency Response Equipment Inspection	Environmental Notebook (Tab N)	Annual review by Fire Department	None	5 years
Pollution Incident Report	Environmental Notebook And PWE files (Tab O)	For each spill/release	Immediately to PWE	5 years
Environmental Compliance Inspection Checklist	Environmental Notebook and PWE files (Tab P)	Four times per year by PWE	None	5 years
Notice of Environmental Violation (NEV)	Environmental Notebook and PWE files (Tab Q)	Not applicable	None	5 years
Hazardous Material Usage and Pollution Prevention/Waste Reduction Report	Environmental Notebook and PWE Files (Tab R)	Annually	Submit annually by January 31 to PWE	5 years

PWE - Directorate of Public Works, Environment Resources Office

In addition to the reports and records in Table 13-1, DRMO, tenants, consultants, contractors, and subcontractors who dispose of waste through entities other than the PWE waste turn-in contractor are required to retain a waste disposal documentation package for each shipment of waste. At a minimum, this package must contain completed copies of:

- Waste manifests
- Shipping papers
- Waste profiles
- Land Disposal Restriction Certification, if required

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14.0 PERSONNEL SAFETY

Personal safety is the responsibility of each employee and his/her supervisor. It includes:

a. **Training.** On-going training, as described in Section 15, is required for all personnel working with hazardous materials/regulated waste. If you have not been trained in a procedure, stop and ask for information and training before performing the task.

b. **Information.** Maintaining up-to-date information on all the hazardous materials/regulated waste on site and how to manage them is required (see Section 4 for requirements).

c. **PPE.** PPE is required at each site. The MSDS required for each hazardous material at the site describes the hazards associated with that material and the recommended PPE. Personnel must be trained in selection and use of PPE. In addition, products may be labeled with the following labels to indicate hazards:

- ***Toxic***: May cause injury or death upon inhalation, absorption, or ingestion
- ***Flammable***: Easily ignitable at room temperature
- ***Corrosive***: Can, through direct contact or exposure to vapors, severely destroy body tissues (e.g., skin, lungs) or wear away the surface of metal
- ***Irritant***: Causes soreness or inflammation of the eyes, skin, respiratory system

d. **Adherence to procedures.** The procedures documented in this regulation, and in the reference documents described in Section 4, are intended to set up procedures that protect the safety of the employee, co-workers, the public, and the environment.

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15.0 TRAINING REQUIREMENTS

This section contains information on hazardous materials/regulated waste handling and training requirements.

15.1 TRAINING

Training is required by OSHA, the EPA, and DOT for all personnel who handle hazardous materials/regulated waste. To reduce duplicate training, agencies accept each other's training credentials, if appropriate and equivalent. Type and level of training is based on job function. Also, the greater the responsibilities in a specific area, the more training will be required. For example, spill responders need greater training than office workers; transporters require different training than maintenance personnel working in a motor pool repair shop. The following table is a guide to the type and level of training you may be required to have to perform your hazardous materials/regulated waste management duties.

Table 15-1
Training Requirements

Personnel	Training Required	Initial Training	Refresher
Director of PWE	4-Hour Command Environmental Briefing	✔	
Director of Logistics	4-Hour Command Environmental Briefing	✔	
Unit Commanders/Activity Supervisors	4-Hour Command Environmental Briefing	✔	✔
	24-Hour USARAK Waste Handler Subject Matter Expert Course	✔	
	Site-specific on-the-job-training (see training record for list of subjects)	✔	
	Hazardous Communication (HAZCOM)	✔	✔
Hazardous Waste Managers; Alternate Hazardous Waste Managers; Hazardous Materials Managers; Alternate Hazardous Materials Managers	4-Hour Command Environmental Briefing	✔	
	24-Hour USARAK Waste Handler Subject Matter Expert Course	✔	
	Site-specific on-the-job-training (see training record for list of subjects)	✔	
	HAZCOM	✔	✔
	8-Hour USARAK annual refresher course		✔

Table 15-1 (continued)
Training Requirements

Personnel	Training Required	Initial Training	Refresher
Other personnel involved in hazardous materials/regulated waste activities.	8-Hour USARAK Basic Hazardous Waste Training	✔	
	Site-specific on-the-job-training (see training record for list of subjects)	✔	
	HAZCOM	✔	✔
	8-Hour USARAK annual refresher course		
Anyone required to wear a respirator	Respiratory Training	✔	As needed
Anyone transporting or handling hazardous material/regulated waste	Hazardous materials transportation course	Within 90 days	Every 3 years
Hazardous waste site workers, spill response Personnel (except first responders), and Hazardous waste container storage unit workers	40-Hour Hazardous Waste (HAZWOPER)	✔	
	8-hour HAZWOPER refresher		✔
	24-Hour USARAK Waste Handler Subject Matter Expert course	✔	
	8-Hour USARAK annual refresher course		✔
	Site-specific on-the-job-training (see training record for list of subjects)	✔	
	HAZCOM	✔	
Asbestos workers involved in testing, handling, removing, and disposing of asbestos-containing materials.	Special training required. Refer to the Asbestos Management Plan available from PWE.		
Lead-based paint workers involved in testing, handling, removing, and disposing of lead-based paint.	Special training required. Refer to the Lead-Based Paint Management Plan available from PWE.		

PWE - Directorate of Public works, Environment Resources Office
USARAK - U.S. Army, Alaska

Required training must be successfully completed by all personnel. Training must be completed within 6 months. Until training is completed, personnel must work under the direct supervision of a previously trained person.

Personnel must be familiar with the contents and location of MSDSs for chemicals used within their facilities or in the field. Periodic briefings must be conducted when new products are brought into a facility, if the product has associated hazards.

For additional information about training, contact:

- Safety Officer
- Civilian Personnel Office
- PWE
- Preventive Medicine
- Joint Regional Environmental Training Center

(intentionally blank)

16.0 FIRST RESPONDER SPILL RESPONSE

Fuel and chemical spills can happen in any job. Knowing what to do can prevent injury and environmental impacts. ***However, perform only those actions which you have been trained to do, and can do, without endangering yourself or others.*** Your spill response responsibilities depend on your training. Special training, equipment, skills, and experience are required to perform spill cleanup. On post, the Fire Department and PWE perform these duties. The Site-Specific Hazardous Materials and Regulated Waste SOPs contains information on response actions for the site.

16.1 WHAT QUALIFIES AS A REPORTABLE SPILL?

Any spill of fuel, hazardous chemicals, regulated waste, or hazardous substances, ***no matter how small,*** requires ***immediate notification of the Hazardous Materials/Regulated Waste Manager and Supervisor, the Fire Department, and PWE*** (the supervisor or person in charge immediately notifies the Fire Department). PWE will determine if additional reports to federal, state, and local agencies are required. Figure 16-1 shows the reporting chain.

16.2 SPILL RESPONSE EQUIPMENT

Each unit/activity managing hazardous materials/regulated waste is required to have the following equipment available at the site for response actions:

- Overpack drums
- Absorbent
- Shovel
- Broom
- Eye protection
- Gloves

The site-specific SOP lists additional spill response materials that are required at the site.

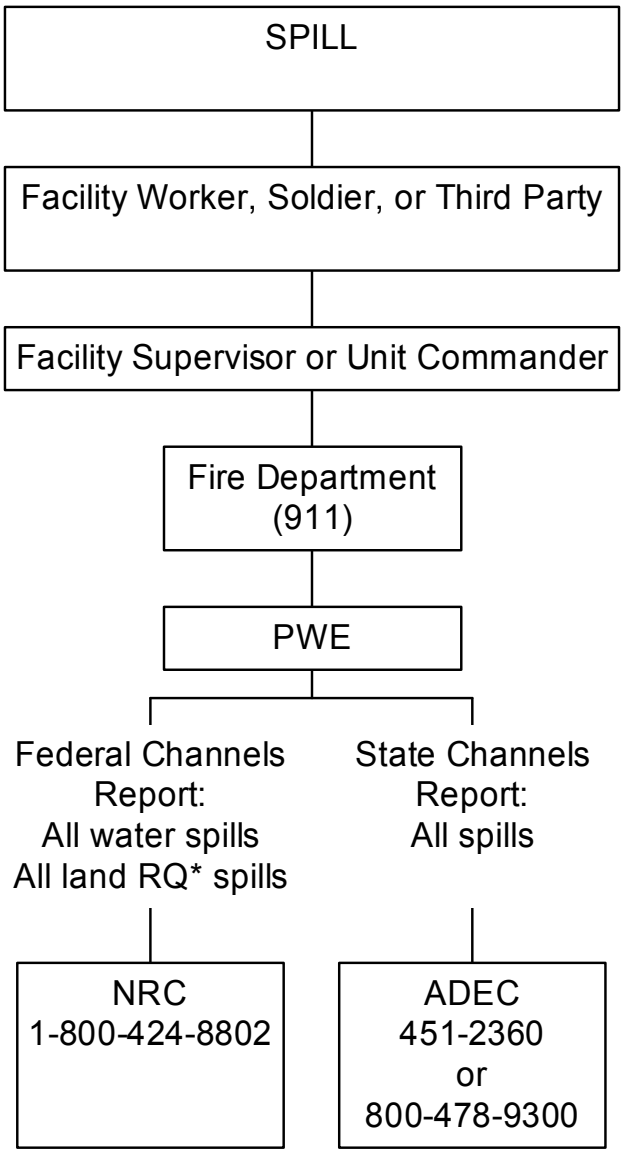
16.3 FIRST RESPONDER SPILL RESPONSE

The SOP also contains detailed information on spill response procedures for your site. If you are familiar with your unit/activity SOP (emergency section), and are aware of hazardous materials/regulated waste, evacuation routes, and basic spill response activities, then you could be a First Responder for operations under your direct control. This means you can perform basic tasks such as placing absorbents, or turning off a broken line or pipe in the area where you work. ***If you have not taken the 40-hour HAZWOPER training, do not attempt further assistance.*** As a First Responder, perform the following action steps:

a. Identify the source of the spill.

b. Provide first aid to any injured; call 911 if medical assistance is needed.

Figure 16-1 Spill Reporting Flow Chart



ADEC - Alaska Department of Environmental Conservation
NRC - National Response Center
RQ - Reportable Quantity

c. Shut off electricity at a location, if safe to do so.

d. Turn off or shut down anything that might start a fire.

e. Close valves or take other action to stop the flow.

f. Contain the spill with booms, absorbents, snow, dirt, or other material.

g. Report the spill to your supervisor or the person in charge.

h. Supervisor or person in charge immediately reports the spill to the Fire Department (911).

i. Start cleanup operations. If the spill exceeds your cleanup capability, wait for the Fire Department to arrive.

j. Contact PWE to report the spill. Alaska law requires all oil and hazardous substance spills to be reported. PWE will report spills to the proper state and federal authorities and perform other required notifications.

The following information will be required when reporting a spill; however, ***do not allow lack of information delay notification***.

a. Name and telephone number of the caller

b. Exact location of the spill or emergency

c. Type and description of the emergency

d. Estimate of the amount of material spilled, on fire, etc.

e. Extent of actual and potential environmental pollution

f. Injuries and/or property damage, if any

g. Possible hazards to off-post human health or the environment

h. Remedial actions taken

(intentionally blank)

17.0 INSTITUTIONAL CONTROLS

Institutional controls (ICs) are administrative measures to control property access and usage. They are applicable to all known or suspected contaminated sites within USARAK including Forts Richardson, Wainwright, and Greely; Seward Recreational Facility; Whittier, etc. ICs such as limitations on the location and depth of excavations, water use, and property transfer agreement restrictions are designed to supplement engineering controls (active contaminant reduction and remediation) as appropriate for short- and long-term management to prevent or limit exposure to hazardous substances, pollutants, or contaminants.

ICs include, among other things, limiting the depth and location of excavations required for training activities (bivouac, maneuvers, construction of temporary fighting positions, etc.), restricting water well drilling and use of groundwater or surface water, or prohibiting certain land uses. For example, organizations must obtain an Excavation Clearance Request (Appendix C) for all soil-disturbing activities impacting soils 6 inches or more below the ground surface. Excavation Clearance Requests can be obtained at the Public Works Customer Service Desks at Building 730 at Fort Richardson, Building 3015 at Fort Wainwright, and Building 605 at Fort Greely.

USARAK has issued decision documents and/or RODs which require the implementation of ICs. USARAK Public Works, Real Property maintains copies of all decision documents and RODs requiring ICs in its real property files. USARAK Public Works, Master Planning will provide regularly updated post maps showing all areas affected by ICs. Copies of these maps will be available to each directorate, activity, and tenant organization. To ensure the effectiveness of ICs, all organizational units and tenant activities will be informed on an annual basis of ICs on contaminated soils and groundwater in effect on USARAK property.

ICs are enforceable by the United States Environmental Protection Agency and ADEC. Failure to comply with an institutional control adopted in a decision document or ROD signed by USARAK, U.S. Army Pacific, or the Army, may violate a USARAK Federal Facility Agreement and may result in stipulated fines and penalties. This does not include the costs of corrective actions required due to violation of an established IC.

Where ICs are applicable to any organization, tenant, or activity, land use restrictions shall be incorporated into either a lease or memorandum of agreement, as appropriate.

Costs for any and all remedial actions and fines and/or stipulated penalties levied as a result of a violation of an established IC will be funded by the violating activity or organization.

The Commanding General, Fort Richardson, has issued a Green Tab memorandum which establishes the parameters of ICs. This is included in Appendix C. Also included in Appendix C is the U.S. Army Alaska ICs Standard Operating Procedure and an example of USARAK Form 81-E(B), Excavation Clearance Request for Forts Richardson, Wainwright and Greely.

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18.0 ADDITIONAL SOURCES OF INFORMATION

This section lists additional sources of information that may be helpful in performing your hazardous materials/regulated waste management duties. Resources listed below include individual contacts, groups, written material, and web sites.

18.1 PWE MONTHLY MEETINGS

PWE holds monthly meetings to communicate new requirements and clarify questions on hazardous materials/regulated wastes. The meetings are typically attended by unit/activity Hazard Waste Managers.

a. **Fort Richardson**
Date--Last Tuesday of the month
Time--0900
Location--Building 704

b. **Fort Wainwright**
Date--Last Wednesday of the month
Time--1300
Location--Building 1555/Theater

c. **Fort Greely**
Date--Last Thursday of the month
Time--1000
Location--Library Classroom

18.2 PWE ENVIRONMENTAL BULLETINS

PWE periodically issues environmental bulletins containing new or key information on hazardous materials/regulated waste management. To get on the mailing list, contact:

Contact--PWE
Telephone--353-9949
E- mail--grayr@wainwright.army.mil

18.3 PWE WEB SITE

PWE maintains the following web site with up-to-date environmental information:

www.usarak.army.mil/dpw/environmental.htm

18.4 PWE

PWE is the source of all environmental information for Fort Richardson, Fort Wainwright, and Fort Greely. Personnel are available to answer questions, assist with compliance issues, provide information, and make site-specific or case-specific environmental decisions.

Contact-- Robert Gray
Telephone--353-9949
E- mail--grayr@wainwright.army.mil

18.5 ENVIRONMENTAL HANDBOOK

The Environmental Handbook is a pocket-resource guide for environmental compliance.

Contact--PWE
Telephone--353-9949
E-mail--grayr@wainwright.army.mil

18.6 ASBESTOS MANAGEMENT PLANS - FORT RICHARDSON, FORT WAINWRIGHT, AND FORT GREELY

Available from PWE.

18.7 LEAD-BASED PAINT WASTE MANAGEMENT PLANS - FORT RICHARDSON, FORT WAINWRIGHT, AND FORT GREELY

Available from PWE.

18.8 OZONE-DEPLETING SUBSTANCES SURVEY REPORT

Available from PWE.

18.9 MSDS DEFENSE SUPPLY CENTER DISKS

This is a compilation of MSDSs for many of the materials used on-post.

Contact--any of the following:
Post Fire Department
Post Safety Officer
DOL

18.10 DA PAMPHLET 710-2

Available from PWE.

18.11 CFR 29, CFR 40, CFR 49

Some federal regulations pertaining to hazardous materials/regulated waste management.

Contact--General Services Administration (GSA) for purchase.

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Index

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APPENDIX A

Signs

Hazardous Materials Storage Area

☐ Flammables ☐ Non-Flammables

No Smoking or flames Within 50 Feet

Emergency Contacts:

FIRE 911

MEDICAL ASSISTANCE 911

Hazardous Materials/Waste Manager

_____ _____

Primary
(Name) (Phone)

_____ _____

Alternate
(Name) (Phone)

Hazardous Waste Accumulation Area

☐ Flammables ☐ Non-Flammables

No Smoking or flames Within 50 Feet

Emergency Contacts:

FIRE 911

MEDICAL ASSISTANCE 911

Hazardous Materials/Waste Manager

_____ _____

Primary
(Name) (Phone)

_____ _____

Alternate
(Name) (Phone)

Satellite Accumulation Area

☐ Flammables ☐ Non-Flammables

No Smoking or flames Within 50 Feet

Emergency Contacts:

FIRE 911

MEDICAL ASSISTANCE 911

Hazardous Materials/Waste Manager

_____ _____

Primary
(Name) (Phone)

_____ _____

Alternate
(Name) (Phone)

Emergency Accumulation Area

☐ Flammables ☐ Non-Flammables

No Smoking or flames Within 50 Feet

Emergency Contacts:

FIRE 911

MEDICAL ASSISTANCE 911

Hazardous Materials/Waste Manager

_____ _____

Primary
(Name) (Phone)

_____ _____

Alternate
(Name) (Phone)

Recycle, Reuse, Reclaim Accumulation Area

☐ Flammables ☐ Non-Flammables

No Smoking or flames Within 50 Feet

Emergency Contacts:

FIRE 911

MEDICAL ASSISTANCE 911

Hazardous Materials/Waste Manager

_____ _____

Primary
(Name) (Phone)

_____ _____

Alternate
(Name) (Phone)

Universal Waste Storage Area

☐ Flammables ☐ Non-Flammables

No Smoking or flames Within 50 Feet

Emergency Contacts:

FIRE 911

MEDICAL ASSISTANCE 911

Hazardous Materials/Waste Manager

_____ _____

Primary
(Name) (Phone)

_____ _____

Alternate
(Name) (Phone)

Non-Hazardous Waste Storage Area

☐ Flammables ☐ Non-Flammables

No Smoking or flames Within 50 Feet

Emergency Contacts:

FIRE 911

MEDICAL ASSISTANCE 911

Hazardous Materials/Waste Manager

_____ _____

Primary
(Name) (Phone)

_____ _____

Alternate
(Name) (Phone)

APPENDIX B

Inspection Forms and Log Sheets

File completed form under TAB E

HAZARDOUS MATERIALS/REGULATED WASTE STAFFING REPORT

JOB TITLE	JOB DESCRIPTION	NAMES OF CURRENT STAFF
Director of Public Works	See Pamphlet 200-1, Section 3.1	
Director of Logistics	See Pamphlet 200-1, Section 3.2	
Unit Commander/Activity Supervisor	See Pamphlet 200-1, Section 3.3	
Hazardous Waste Manager	See Pamphlet 200-1, Section 3.4	
Alternate Hazardous Waste Manager	See Pamphlet 200-1, Section 3.4	
Hazardous Materials Manager	See Pamphlet 200-1, Section 3.4	
Alternate Hazardous Materials Manager	See Pamphlet 200-1, Section 3.4	
Other	See Pamphlet 200-1, Section 3.5 – Section 3.8	
Other	See Pamphlet 200-1, Section 3.5 – Section 3.8	
Other	See Pamphlet 200-1, Section 3.5 – Section 3.8	
Other	See Pamphlet 200-1, Section 3.5 – Section 3.8	

Revised: _____ Signed: _____

Date

Title: _____

Building: _____

Unit/Activity: _____

File completed form under TAB F

PERSONNEL TRAINING RECORD

(Attach copy of all Training Certificates)

1. Employee Name: _____

2. Job Title:
   - ❑ Unit Commander
   - ❑ Activity Supervisor
   - ❑ Hazardous Material Manager
   - ❑ Alternate Hazardous Material Manager
   - ❑ Hazardous Waste Manager
   - ❑ Alternate Hazardous Waste Manager
   - ❑ Other _____

3. Date Starting this Job: _____
   (mm/dd/yy)

4. Training Record:

		Date mm/dd/yy	Certificate Attached?	Trainer's Initials
❑	Provided and reviewed Pamphlet 200-1, and Environmental Handbook		❑	
❑	8-Hour USARAK Basic Hazardous Waste Training Completed		❑	
❑	24-Hour USARAK Waste Handler Subject Matter Expert Course		❑	
❑	Annual USARAK Refresher		❑	
❑	HAZCOM		❑	
❑	Site-specific on-the-job training			
	❑ Location and use of MSDS sheets		❑	
	❑ Site-specific SOP		❑	
	❑ Identification of Hazardous Materials and Regulated Waste		❑	
	❑ Personal protective equipment			
	❑ Hazardous Materials/Regulated Waste Accumulation Areas		❑	
	❑ Emergency/Spill Response Actions and Coordinators		❑	
	❑ Pollution Prevention		❑	
❑	Unit Level Hazardous Communication Program		❑	
❑	Hazardous Waste Site Worker (29 CFR 1910.120)			
	❑ 40-Hour Training ❑ 24-Hour Training ❑ 8-Hour Refresher		❑	
❑	Spill Cleanup Procedures Training		❑	
❑	4-Hour Command Environmental Briefing		❑	
❑	Respiratory Protection Training		❑	
❑	Pollution Prevention		❑	
❑	Other Training: _____		❑	
	_____		❑	
	_____		❑	
	_____			

File completed form under TAB G

HAZARDOUS MATERIALS/REGULATED WASTE INVENTORY LOG

STORAGE AREA: _____

(Unique name shown on the floor plan)

Date	Material/Waste Name (NSN/Part Number)	Requisition Number	Quantity Transferred	Received or Removed	MSDS in Notebook (Y/N)

Building:_____

Unit/Activity:_____

POLLUTION PREVENTION INVENTORY AND REVIEW

1. Building: _____

2. Unit/activity: _____

3. New activity requiring review: _____

4. Review Findings:

   a. Hazardous materials used: _____

   b. Is there a less hazardous substitute for any of these materials? _____

   c. Hazardous wastes or other regulated wastes generated: _____

   d. Is there a way to adjust process/activity to reduce the hazardous waste or other regulated wastes? _____

   e. Is there a way to recycle or reuse the hazardous or other regulated wastes? _____

   f. Are materials stored in a manner that minimizes spills? _____

Review completed by: _____

Date: _____

File completed form under TAB I

HAZARDOUS MATERIALS/WASTE REDUCTION LOG

1. Date: _____

2. Building and unit/activity: _____

3. Personnel involved: _____

4. Description of material/waste reduction achieved:

5. Quantity of material reduced:

6. Approximate cost and/or cost savings:

7. Is this idea applicable to other units/activities?

CONTAINER LOG

UNIT/ACTIVITY _____ BUILDING NUMBER _____

CONTAINER NUMBER _____ CONTENTS _____

NUMBER	DATE	TYPE OF WASTE	AMOUNT ADDED	NAME OF PERSON
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

TURN-IN VERIFICATION
GENERATOR CERTIFICATION:

I, _____ hereby certify that all the information submitted in this document is to the best of my knowledge an accurate representation of the waste turned in. All known or suspected hazards have been disclosed.

SIGNATURE _____ Date: _____

This section to be filled in by the DIRECTORATE OF PUBLIC WORKS, ENVIRONMENT RESOURCES OFFICE

DD Form 1348-1 Number _____ Date: _____

Public Works Representative Name: _____

Weekly Inspection Record

Date: _____ Location: _____ Organization: _____

Inspected by: _____ Signature: _____

Waste Containers			
Container Condition		**Yes**	**No**
	Are containers tightly closed? Para 8.1c		
	Are containers in good condition? Para 8.1a		
	Are containers free of leaks? Para 8.1a		
Container Marking		**Yes**	**No**
	For HWAAs and EAAs, is the Accumulation Start Date marked on container(s)? Figure 10-1		
	If hazardous waste, is "Hazardous Waste" warning marked on container(s)? Figure 10-1		
	Are contents marked on container(s)? Figure 10-1		

Accumulation Area		
	Yes	**No**
Are container logs present and properly maintained? Para 9.11a		
Is the accumulation area properly marked? Para 9.7a		
Are compatible wastes being stored with each other? Section 7		
For SAAs, are no more than 55 gallons of hazardous waste being stored? Para 9.8b		
Is the accumulation area clean and spill-free? Para 9.10i		
Does adequate aisle space exist? Para 9.7g		

Emergency Response Equipment			
Telephone		**Yes**	**No**
	Is it easily accessible and working in case of emergency? Para 9.7b		
	Are proper emergency response personnel numbers posted by telephone? Para 9.7b		
Spill Control	Is an empty salvage drum nearby? Para 16.2		
	Is spill response equipment available? Para 16.2		
	Is personal protective equipment (PPE) available? Para 16.2		
Fire Protection	Is a fire extinguisher readily accessible and fully charged? Para 9.7d		
If any of these questions were marked NO, comment and describe action taken to correct situation.			

EMERGENCY CONTACT LIST

In case of an emergency, the emergency contacts are:

FIRE DEPARTMENT **911**

MEDICAL **911**

Hazardous Waste Managers
(minimum of two required)

1. _____ _____
Name Phone

2. _____ _____
Name Phone

Other Contacts:
(none required)

1. _____ _____
Name Phone

2. _____ _____
Name Phone

3. _____ _____
Name Phone

Revised: _____ Building No: _____
(mm/dd/yy) Unit/Activity: _____

POST AT EACH WASTE ACCUMULATION AREA

EMERGENCY RESPONSE DRILL RECORD
(required Quarterly)

Names of Participating Personnel:

_____

_____

_____

_____

_____

Emergency Response Drill Included Rehearsing/Reviewing:

❑ Spill reporting procedure

❑ Personnel roles

❑ Selection, use and location of personal protective equipment (PPE)

❑ Basic hazard and risk assessment techniques

❑ Basic hazardous material/regulated waste terms

❑ Controlling, containing and/or confining hazardous materials and regulated wastes

❑ Evacuating personnel to safe locations

❑ Basic decontamination procedures

❑ Site-specific SOP review

❑ Location of spill response materials

Next Emergency Response Drill scheduled for: _____
(mm/dd/yy)

_____ _____
Signature Date

_____ _____
Title Building

_____
Unit/Activity

EMERGENCY RESPONSE EQUIPMENT INSPECTION

Unit/Activity: _____

Building No: _____

Inspection included:

- ❑ Review of Facility Floor Map against actual activities/equipment.
- ❑ Verify the number of and locations of fire extinguishers as appropriate.
- ❑ Verify that fire extinguishers are charged.
- ❑ Location and condition of flammable and combustible materials and waste storage.
- ❑ Condition of emergency and spill response equipment.

Inspector: _____
(printed name)

Inspector Signature: _____

Date: _____

File completed form under TAB O

POLLUTION INCIDENT REPORT

DATE: _____
TIME: _____
REPORT # _____

SUBJECT: SPILL REPORT

1. FACILITY NAME & LOCATION: (Select One)

Fort Richardson ( ) Fort Wainwright ( )
Fort Greely ( ) Other ( ) _____

2. POC, UNIT, NAME, LOCATION & PHONE: _____

3. REPORTED TO PWE: _____

4. SPILL OCCURRENCE DATE/TIME: _____

5. DISCOVERED BY: _____

6. SEVERITY: Unknown ( ) Minor ( ) Medium ( ) Major ( )

7. SUBSTANCE SPILLED: MUR ( ) AVGAS ( ) DFA ( ) JP4/8 ( ) Oil ( ) Antifreeze ( )
Other: _____

8. VOLUME RELEASED: (Estimated) gallons bbls _____ Unknown ( )

9. SPECIFIC LOCATION: (Fill in) Bldg No._____ Tank No._____ Airfield ( )
Pipeline Milepost _____ General Vicinity _____

10. SPECIFIC AREA AFFECTED: (Fill in)

Pipeline Right-of-Way	( )	Land	( )	Sq.Ft.	_____
Inside Dike or Berm	( )	Water	( )		_____
Government Property	( )	Other	( )		_____
Private Property	( )				_____

11. CAUSE & SOURCE:

Tank Overfill	( )	Weld	( )	Corrosion	( )
Tank Failure	( )	Valve	( )	Vandalism	( )
Frost Heave	( )	Flange	( )	Mechanical	( )
UST	( )	Equip.	( )	Pipeline	( )
Inattention	( )	Accident	( )	No Training	( )

Other Comments: _____

12. DAMAGE & IMPACTS: (Mark & Fill in)

Vegetation	( )	Fish	( )	Wildlife	( )
Surface Water	( )	Ground Water	( )	Wetlands	( )
Critical habitat	( )	Other	_____		

13. DANGER: Fire ( ) Toxic Vapor ( ) Other ( ) None ( )

14. CORRECTIVE ACTION AT SOURCE: (Fill in)

Dispatched reconnaissance	( )	Stopped pump	( )
Dispatched maintenance crew	( )	Closed valve	( )
Reduced line pressure	( )	Repaired leak	( )
Called in Contractor	( )	Deployed boom	( )
Built dike or berm	( )	Other _____	

15. CORRECTIVE ACTION TO ELIMINATE POLLUTION: (Mark or describe)

Absorbent	( )	Skim	( )	Remove Soil	( )
Disperse	( )	Burn	( )	Flush	( )
Evaporate	( )	Pump	( )	Other _____	

16. VOLUME RECOVERED TO DATE: _____

17. DISPOSAL: (Mark or describe)

Overpacked drum	( )	O/W Separator	( )
Incinerator	( )	To PWE	( )
Undecided/hold	( )	Other _____	

18. SAMPLES & PHOTOS: Yes ( ) No ( ) Disposition _____

19. ASSISTANCE REQUIRED: None ( ) IOSC ( )
DPW Roads & Grounds/Enviro Res. ( ) OSC ( )
RRT ( ) Other _____

20. COMPLETION DATE/TIME: (Estimate) _____

21. MEDIA & PAO: (Date/time report faxed to PAO) _____

22. PERSON RESPONSIBLE FOR SPILL: _____

23. EXTENT OF INJURIES: None ( ) _____

24. ADDITIONAL COMMENTS: _____

Spill Reports WILL NOT be delayed due to lack of information on any item

DIRECTORATE OF PUBLIC WORKS
ENVIRONMENT RESOURCES OFFICE

APVR-RPW-EV 1 August

ENVIRONMENTAL COMPLIANCE INSPECTION CHECKLIST

1. PURPOSE:

   a. To provide a standardized checklist for Environmental Compliance Inspectors conducting field audits of unit motor pools and maintenance facilities.

   b. To assess compliance with federal, state, and Army environmental regulations.

2. APPLICABILITY: This checklist is applicable to all units and activities assigned, attached to, or supported by the United States Army Garrison, Alaska and company areas (e.g., arms room, supply room, nuclear, biological, and chemical [NBC] room, and command).

3. GENERAL: This inspection checklist is designed to assess environmental compliance with cited regulations. Major categories for inspections include:

   a. Program management

   b. Hazardous materials management

   c. Waste management

   d. Battery management

   e. Maintenance bays

   f. Wash racks and parking lots

   g. NBC storage areas

   h. Field inspections

4. TASK: Maintain hazardous material/regulated waste management areas to comply with federal, state, and Army environmental regulations.

5. CONDITION: Operators of motor pools, maintenance facilities, and any other activities which store hazardous materials and generate regulated waste will inspect weekly for compliance with environmental regulations. These facilities will also, as a minimum, be inspected at least quarterly by the Directorate of Public Works, Environment Resources Office and the Office of the Inspector General.

6. STANDARD: Quarterly inspections will be conducted using the attached checklists. The standard is to achieve 100 percent "PASS" on all critical starred (✪) items and an 85 percent “PASS” on all other noncritical items. Failure to pass this inspection may result in the Command receiving a Notice of Violation by EPA or ADEC.

7. REFERENCES:

   a. AR 200-1, Environmental Protection and Enhancement.

   b. AR 420-47, Solid and Hazardous Waste Management.

   c. Pamphlet 200-1.

ENVIRONMENTAL COMPLIANCE INSPECTION CHECKLIST

1. INSPECTOR'S NAME(S)/TELEPHONE NUMBER(S):

2. INSPECTOR'S UNIT/ORGANIZATION:

DIRECTORATE OF PUBLIC WORKS, ENVIRONMENT RESOURCES OFFICE, ENVIRONMENTAL SERVICES BRANCH

3. DATE/TIME OF INSPECTION:

4. WEATHER CONDITIONS:

5. UNIT/ORGANIZATION BEING INSPECTED:

6. BUILDING NUMBER:_____

7. UNIT/ORGANIZATION HAZARDOUS WASTE TECHNICIAN:

_____

8. UNIT/ORGANIZATION PERSON(S) ACCOMPANYING THE INSPECTOR:

_____

9. INSPECTION RESULTS WERE:

SATISFACTORY ❑ UNSATISFACTORY ❑

I certify that I have received an out brief and a copy of this environmental compliance inspection.

_____	_____	_____
Printed Name	**Signature**	**Date (mm/dd/yy)**

Command Pre-Inspection Notification Made: _____
mm/dd/yy

Name of Person Notified: _____

File completed form under TAB P

1. PROGRAM MANAGEMENT

	SATIS-FACTORY		UNSATIS-FACTORY
PERSONNEL APPOINTMENTS			
1. Are the unit's Hazardous Waste Manager and alternate appointed in writing? Para. 3.3a, Table 4.1		✪	
2. Are job titles, with the name of the person filling the job, available for each job related to regulated waste management? Para. 4.3		✪	
TRAINING			
3. Have personnel handling regulated waste received formal USARAK training and yearly refresher training, and are the certificates for this training on file? Para 15.1 Table 15-1		✪	
4. Is there a record indicating when workers last received unit level training concerning the Hazard Communication Program and regulated waste management, including spill clean-up procedures? Para 3.4d, 15-1 Table 15-1			
HAZARDOUS MATERIAL/REGULATED WASTE SOP			
5. Does the unit/activity have a hazardous material/regulated waste SOP on file? Is the SOP current and being followed? Para 3.3k, 3.4f, 4.3 Table 4-1		✪	
6. Does the unit/activity have a diagram of the area(s) where hazardous materials and regulated waste are stored? Is this diagram current? Para 4.3			
INSPECTIONS			
7. Are inventories of hazardous materials recorded and up-to-date? Table 13-1, 4-1 & Appendix B			
8. Are weekly regulated waste inspections conducted/documented? Para. 3.4b, 3.4l, 911b Table 9-7		✪	
9. For containers holding regulated waste, are container logs maintained? Para. 3.4g, 3.5d, 9.11a, Table 4-1, 9-7 and Appendix b		✪	
10. Is stormwater run-on/run-off properly managed? Para 3.3c			
SAFETY/WASTE DETERMINATIONS			
11. Does the unit/activity have current MSDSs on file for hazardous materials? Para 3.3i, 4.2 Table 4-1			
12. Has the unit/activity properly determined whether its wastes are regulated as hazardous wastes? Chap 5		✪	

File completed form under TAB P

OTHER RECORD KEEPING REQUIREMENTS	SATIS-FACTORY	UNSATIS-FACTORY
13. Is a copy of the Commanding General's latest Environmental Management Memorandum on file in unit/activity Environmental Notebook? Chap. 17 Table 4-1		
14. Does the unit/activity have a current copy of the Pamphlet 200-1 on file? Para. 1.0 Table 4-1b		
15. Are all Directorate of Public Works, Environment Resources Office Bulletins on file in the unit/activity Environmental Notebook? Para 18.2 Table 4-1t		

Inspector's Comments:

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2. HAZARDOUS MATERIALS MANAGEMENT

	THIS SECTION NOT APPLICABLE _____	SATIS-FACTORY		UNSATIS-FACTORY
Building and location stored _____				
1.	Are new products segregated from in-use containers?	_____		_____
2.	Are new product shipping seals left in place until the product is needed? Para 10.1	_____		_____
3.	MATERIAL COMPATIBILITY. Are the following not stored together: flammables with corrosives or oxidizers; poisons with corrosives; caustics with acids? Para. 7.0 Figure 7-1	_____	✪	_____
4.	Are flammable materials stored in a flammable material locker? Para. 9.12c	_____		_____
5.	Are hazardous materials in operating areas kept to a minimum? Are hazardous materials containers closed when not in use? Para. 8.1c, 9.10g	_____		_____
6.	Are product containers serviceable? Are product containers labeled to identify the contents? Para 8.1a, 10.0, 10.1	_____		_____
7.	Is the material storage area(s) properly designated and marked? Para 9.7a	_____		_____
8.	Are containers that are stored outside covered in a manner to prevent them from becoming regulated waste ?	_____		_____
9.	Are spill response supplies readily available? Para 16.2	_____		_____
10.	Are there procedures to ensure stock rotation on a "first-in/first-out" (FI/FO) basis? Para 3.3m, 3.7f, 6.1a	_____		_____
11.	Are unneeded, damaged, leaking, and excess hazardous materials and empty containers formerly holding hazardous material promptly and properly turned in? Para 5.12, 8.1a	_____	✪	_____
12.	Are procedures in place for turn-in of excess hazardous material? Section 5	_____		_____
13.	Is the product inventory up-to-date and accurate? Para 3.4k	_____		_____

Inspector's Comments:

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3. WASTE MANAGEMENT

	SATIS-FACTORY		UNSATIS-FACTORY
THIS SECTION NOT APPLICABLE _____			
WASTE CONTAINER REQUIREMENTS			
1. Are containers properly closed? Are bungs tightly closed (more than finger tight) after every use? Para. 8.1c, 9.10g	_____	✪	_____
2. Are any containers: leaking, rusted (more than surface), corroded, dented more than 2 inches? Do any containers have unserviceable filler caps/bung and/other sealing devices, any bulges, grooves other than removed metal, or dents in seams/corrugations? Are containers deteriorated in any other way? Para 8.1	_____	✪	_____
3. Is container the appropriate material and construction for the waste it is holding? Para 8.1b, 8.2	_____	✪	_____
4. Are containers not over-filled? (Liquids should be no more than 3 to 4 inches from the top of a 55-gallon drum, 1.5 to 2-inches from the top of a 5-gallon can, 1 inch from the top of a 1-gallon can. Soils/solids should fill no more than 3/4 of container.) Para 8.3b	_____		_____
CONTAINER MARKING			
Regulated Waste Only			
5. For HWAAs and EAAs, is accumulation start date marked on container(s) and storage time limits not exceeded? For SAAs, is start date put on when last drop is added to container, and the container is prepared for transport? Para 9.9, Table 9-5	_____	✪	_____
6. Are the words "Hazardous Waste" marked on container(s) holding hazardous waste? Para 10.2	_____	✪	_____
7. Are containers of flammable hazardous waste properly marked with a flammable sticker? Para 10.2	_____		_____
Non-Hazardous Wastes Only			
8. Are the words "Non-Hazardous Waste" marked on container(s) holding the non-hazardous waste? Para 10.2	_____		_____
9. Are containers of used oil marked “Used Oil” and “Non-Hazardous waste for Energy Recovery and Recycling” where applicable? Para 5.30	_____	✪	_____
10. Are used oil drip pans, drain buckets and tank fill pipes marked “Used Oil”? Para 10.0	_____	✪	_____
All Containers			
11. Is container(s) information properly marked? Para 10.2	_____		_____
12. Are all other nonapplicable (old) labels painted out? Para 8.2, Section 10	_____		_____
13. Are overpack containers labeled and marked correctly to reflect their contents? Section 10	_____		_____

File completed form under TAB P

	SATIS-FACTORY		UNSATIS-FACTORY
WASTE STORAGE AREA MANAGEMENT			
14. Can the waste storage area be differentiated from other shop activities? Para 9.2, 9.6d, 9.7a			
15. Is the waste storage area free of severe structural deterioration? Para 9.6b			
16. Are there signs designating the area as a waste storage area posted on all visible sides? Do the signs correctly specify the type of waste storage area (e.g., SAA, HWSA, NHWSA, etc.)? Para 9.7, Appendix A		✪	
17. Are signs stating "No Smoking Within 50 Feet" posted? Para 9.7, Appendix A		✪	
18. At SAAs, are there no more than a total of 55 gallons of hazardous waste (or 1 quart of acutely hazardous waste) being stored? Para 9.4, 9.8b		✪	
19. Are any vents for the waste storage area unobstructed? Para 9.10c			
WASTE COMPATIBILITY			
20. Are the following not stored together: flammables with corrosives or oxidizers; poisons with corrosives; caustics with acids? Para 7.0, Figure 7-1		✪	
21. Are regulated wastes segregated from hazardous materials? Para 2.0			
22. Are flammable wastes segregated from non-flammable wastes? Para 9.12d			
23. Does the storage area have adequate secondary containment capable of holding 110 percent of the liquid contents of the largest container? Para 9.7f			
24. Are drums that are stored outside covered in a manner to prevent accumulation or intrusion of rain and have secondary containment?			
25. Are drums positioned so labels can be easily read? Para 9.7g			
26. Are flammable drums properly grounded? Para 9.12j			
27. Is adequate aisle space (3 feet) present between drums to allow unobstructed movement for emergency response? Para 9.7g		✪	
28. Are container logs present for each barrel containing waste? Para 3.4g, 3.5d, 9.11a		✪	
29. Is the waste storage area clean and neat? Para 9.10i			
30. Are current personnel contacts posted at the storage area in case of an emergency? Para 9.7a, Appendix A		✪	

File completed form under TAB P

	SATIS		UNSATIS
EMERGENCY RESPONSE			
31. Is the telephone easily accessible with emergency contacts posted in case of emergency? Is the telephone working? Para 9.7b	_____	✪	_____
32. Is there always a designated employee at the unit/activity or on call within a short distance of the unit/activity who has the responsibility for coordinating all emergency response measures? Para 3.4h	_____	✪	_____
33. Does the unit commander/activity supervisor know what responses are required in cases of fire, explosion, spills, etc.? Para 3.3d	_____		_____
34. Is each hazardous material/regulated waste storage area marked on the Facility Site Plan? Para 4.3	_____		_____
SPILL CONTROL			
35. Is an empty salvage drum nearby? Para 16.2	_____		_____
36. Are absorbent materials on hand appropriate to the wastes stored? Para 16.2	_____	✪	_____
37. Is all appropriate personal protective equipment (PPE) nearby? ☐ Gloves ☐ Boots ☐ Apron ☐ Goggles ☐ Respirator (if applicable) Para 16.2	_____	✪	_____
FIRE PROTECTION			
38. Is a fire extinguisher readily accessible? Is the fire extinguisher fully charged? Para 9.7d, 9.10b, 9.12c	_____	✪	_____
39. Is the fire extinguisher seal intact and the monthly inspection tag completed? Para. 9.10b	_____	✪	_____
PERSONAL SAFETY			
40. Is there an evacuation route from the storage area? Para. 4.3	_____		_____
41. Do personnel working with hazardous materials/regulated wastes know the locations of MSDSs and safety precautions for the materials/regulated wastes? Para. 3.3i, 4.2	_____		_____

Inspector's Comments:

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4. BATTERY MANAGEMENT

		SATIS-FACTORY		UNSATIS-FACTORY
	THIS SECTION NOT APPLICABLE _____			
1.	Are spent batteries that aren't damaged, ruptured or leaking containerized in tightly closed containers and labeled “UNIVERSAL WASTE - USED BATTERIES”? Para. 5.6	_____	✪	_____
2.	Are batteries that are damaged, ruptured or leaking separated from nondamaged batteries, containerized in tightly closed containers and labeled “HAZARDOUS WASTE - USED BATTERIES”? Para 5.7	_____	✪	_____
3.	Are batteries segregated by type? Para. 5.6e, 5.7e	_____		_____
4.	Is a start date marked on each container of batteries? Figure 10-1	_____	✪	_____
5.	Are battery accumulation time limits being met? Para 9.9c	_____		_____
6.	Are batteries stored in a way that prevents possibility of leaks or rupture?	_____		_____
7.	Are MSDSs on hand for each type of battery stored? Para 4.2	_____		_____
8.	Are waste containers compatible for the type of battery? Para 8.1b	_____		_____

Inspector's Comments:

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5. MAINTENANCE BAYS

	THIS SECTION NOT APPLICABLE _____	SATIS-FACTORY		UNSATIS-FACTORY
1.	Are the maintenance bay floors free of POL buildup? Para 3.3l			
2.	Are containers for new and used dry sweep in place and properly marked? Para 5.10, 5.11, 10.0			
3.	Are all personnel aware of the proper procedures for disposing of contaminated dry sweep? Para 3.5d		✪	
4.	If parts washers are available, are lids secured when not in use? Para 6.1b, 8.1c			
5.	Are dry sweep, rags, and other foreign matter kept out of parts washer?			
6.	Are parts washers used for cleaning parts only?			
7.	Are parts washing machines properly installed (i.e., hard-wired, vented, drains installed)?			
8.	Are drip pans used?			
9.	Are spills and leaks promptly and properly repaired and cleaned?		✪	
10.	Are workers using proper protective equipment (PPE) when required? Para 14.0			
11.	Is vehicle parking area free of oil spills/stained soils? Para 3.3l			
12.	Are unsuitable materials, such as used oil, soap, and detergents, restricted from reaching oil/water separators, sand traps, and ditch drains? Para 3.3c, 9.2 & Table 9-1			

Inspector's Comments:

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6. WASH RACKS AND PARKING LOTS

		SATIS-FACTORY		UNSATIS-FACTORY
	THIS SECTION NOT APPLICABLE _____			
1.	Are the wash rack areas and parking lots clean and concrete/asphalt free of POL build-up? Para 3.3l	_____		_____
2.	Does unit ensure hazardous solvents and unauthorized cleaners are not used on wash racks? Para 3.3c	_____		_____
3.	Are all grates in place?	_____		_____
4.	Are dumpsters free of hazardous materials/regulated waste? Para 9.2	_____	✪	_____

Inspector's Comments:

File completed form under TAB P

7. NBC STORAGE AREA

		SATIS-FACTORY		UNSATIS-FACTORY
	THIS SECTION NOT APPLICABLE _____			
1.	Are inventories of nuclear, biological, and chemical (NBC) material recorded and updated? Para 3.4k	_____		_____
2.	Are MSDSs or similar information available on site for all chemical products? Para 3.3i	_____		_____
3.	Is material stored in a safe and secure manner? Para 9.0	_____		_____
4.	Has expired material been properly processed for disposal?	_____		_____
5.	Are appropriate technical bulletins (TB), technical manuals (TM), field manuals (FM), and Army regulations (AR) available and on site?	_____		_____
6.	Are corrosives and oxidizers segregated? Para 7.0	_____	✪	_____

Inspector's Comments:

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File completed form under TAB P

8. FIELD INSPECTIONS

	SATIS-FACTORY		UNSATIS-FACTORY
THIS SECTION NOT APPLICABLE _____			
1. Are all chemical materials within the stated container shelf life?	_____		_____
2. Are corrosives and oxidizers segregated from flammable products? Section 7	_____	✪	_____
3. Are each of the chemicals compatible with their containers? Section 7	_____		_____
4. Are containers free from damage and bungs/lids in place? Para 8.1a	_____		_____
5. Are MSDSs on file within the storage area? Para 4.2	_____		_____
6. Are inventories of hazardous material recorded and up-to-date? Para 3.4k	_____		_____

Inspector's Comments:

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File completed form under TAB Q

NOTICE OF ENVIRONMENTAL VIOLATION

Public Works Tracking Number: _____

Section 1. Purpose and Applicability

a. A Notice of Environmental Violation (NEV) is issued by the Directorate of Public Works when a significant environmental deficiency is noted that could result in the endangerment of human health or non-compliance with federal, state, local and Army environmental regulations.

b. All personnel assigned, attached, contracted, or supported by the U.S. Army Garrison, Alaska, are subject to being issued a NEV.

c. Compliance with the directives of this NEV is mandatory. Failure to follow applicable Army, federal, and state regulations can result in punishment under the Uniform Code of Military Justice (UCMJ) or civil law.

Section 2. Issuer of the Violation:
a. Name/Phone Number: _____ Unit/Organization: _____

b. Date/Time of Issuance: _____

Section 3. Violation Issued To:
a. Name/Phone Number: _____ Unit/Organization: _____

Section 4. Seriousness of Violation (s):

a. Violation 1:
MOST SERIOUS ❑ 5* ❑ 4 ❑ 3 ❑ 2 ❑ 1 LEAST SERIOUS
Reference ❑ Code of Federal Regulations _____ ❑ USARAK 200-1 pamphlet _____ ❑ Other _____

b. Violation 2:
MOST SERIOUS ❑ 5* ❑ 4 ❑ 3 ❑ 2 ❑ 1 LEAST SERIOUS
Reference ❑ Code of Federal Regulations _____ ❑ USARAK 200-1 pamphlet _____ ❑ Other _____

c. Violation 3:
MOST SERIOUS ❑ 5* ❑ 4 ❑ 3 ❑ 2 ❑ 1 LEAST SERIOUS
Reference ❑ Code of Federal Regulations _____ ❑ USARAK 200-1 pamphlet _____ ❑ Other _____

* Refer Immediately to the Garrison and Post Commander

Section 5: Description of Violation (s):

Notice of Environmental Violation

Section 6: How to Correct Violation (s):

Section 7. Deadline to Correct Violation (s):

a. Violation 1:	❑ Immediately	❑ 24 Hours	❑ 48 Hours	❑ 72 Hours	❑ Other	_____
b. Violation 2:	❑ Immediately	❑ 24 Hours	❑ 48 Hours	❑ 72 Hours	❑ Other	_____
c. Violation 3:	❑ Immediately	❑ 24 Hours	❑ 48 Hours	❑ 72 Hours	❑ Other	_____

Section 8: Reinspection Results:

❑ Satisfactory ❑ Unsatisfactory*

*Unsatisfactory Results Immediately Referred to the Garrison and Post Commander

Reason(s) For Unsatisfactory Results

Section 9: Copies Furnished:

❑ Public Works	❑ IG	❑ SJA	❑ GC/PC	❑ Other	_____

File completed form under TAB R

HAZARDOUS MATERIALS USAGE AND POLLUTION PREVENTION/WASTE REDUCTION REPORT

TO BE OBTAINED FROM PWE

APPENDIX C

Institutional Controls (Commanding General's Green Tab Memorandum, USARAK Institutional Controls Standard Operating Procedure, and Example of Form 81-E(B), Excavation Clearance Requests for Forts Richardson, Wainwright and Greely)